92-02243/

CANADIAN EDUCATION ASSOCIATION | ASSOCIATION CANADIENNE D'ÉDUCATION

Evaluating the Effectiveness of School Drop-Out Prevention Strategies: Some Suggestions for Future Research

Final Report

Sonia Morris
Walter Pawlovich
Douglas McCall

CONSULTATION, COLLABORATION, COOPERATION

Shannon & McCall Consulting Ltd.

Putting Ideas and People Together

TABLE OF CONTENTS

I. Introduction.......1

II. Purposes and Methodologies.......3

III. The Extent of the Problem.......5

IV. The Nature of the Problem.......17

V. Understanding the Problem.......31

VI. Solving the Problem.......67

VII. Choosing Topics or Strategies for Future Research.......89

VIII. Recommendations for Future Research.......115

Bibliography and References

Appendix One: Notes on Working Groups

This publication has been funded through a project grant provided by the Innovations Program, Employment and Immigration Canada. Employment and Immigration Canada, and the Canadian Education Association do not necessarily agree with all of the statements contained herein.

I. INTRODUCTION

At the end of November 1990, an agreement was reached between the Canadian Education Association and the Innovations Program of Employment and Immigration Canada to conduct a project to identify priorities in future research evaluating the effectiveness of various strategies to reduce school drop-out rates.

This project was to lead to the development of a list of ten to fifteen strategies which are considered, on the basis of a research review and a national consultation, to have the potential for effectiveness, to be feasible in terms of costs of eventual implementation by schools or other community agencies and to be seen to be credible by those who are directly concerned with school drop-out prevention.

A report was prepared initially from a lengthy review of the research literature on school drop-outs and the results of a national consultation undertaken in December 1990 and January 1991. A summary of those findings was presented to a national invitational workshop held February 7-9, 1991, in Ottawa.

The purposes of the workshop were:

- to discuss the findings of the research review and national consultation
- to accept, reject or modify the suggestions prepared by the researchers as to which drop-out prevention strategies should be considered for future research
- to suggest ideas and sources of information or expertise which should be used in developing research proposals on those selected topics.

This final report incorporates all of the results of this project. Despite the very short timelines which were necessary for the project, a pattern and a consensus of appropriate directions for future research emerged from the research review, consultations and national workshop. The final recommendations include:

- three areas of qualitative research to investigate the problem of school drop-outs
- ten specific strategies which should be evaluated for their effectiveness in preventing school drop-outs
- two topics for which data should be collected and disseminated widely to those concerned with school retention
- seven suggestions regarding research methodologies to correct for weaknesses identified in previous research undertaken about school drop-outs.

II. PURPOSES AND METHODOLOGIES

The purposes of this final report are:

- to review recent trends in the research literature as well as recent work done in the provinces/territories on school strategies
- to describe the characteristics of school drop-outs and factors contributing to their decision to leave school
- to review different explanations found in the research review which explain the phenomenon of school drop-outs
- to review the research which assesses or evaluates drop-out prevention strategies
- to suggest several areas or specific drop-out prevention strategies which should be considered for future research which truly evaluates their effectiveness
- to offer some general suggestions on how such future research should be conducted.

The methodologies used in this project were varied and were constricted by very severe time constraints. The researchers and CEA both express their appreciation for the extraordinary cooperation received from the provinces and territories as well as from individual respondents in helping to meet deadlines. The methods used to collect data were as follows:

- literature searches of the ERIC and Canadian Education Index databases from 1983 to September 1990
- literature searches conducted for an earlier study: Cipywnyk, S.V., Pawlowich, W., & Randhawa, B. (1983). Early school leavers in Saskatchewan: A preliminary study, Saskatoon, Sk., University of Saskatchewan.
- a telephone search of 25 major U.S. and Canadian centres, institutions or organizations to locate unpublished materials
- interviews and meetings with representatives of provincial/territorial Departments of Education, Manpower and/or Advanced Education
- interviews and meetings with individuals and groups of provincial/territorial organizations from education, business, labour and the community
- telephone interviews with representatives of approximately 25 national organizations from those same sectors

- a national invitational workshop involving approximately 75 individuals from national organizations from education, business and the community from provincial/territorial Departments of Education and Departments of Training from the federal government, from local drop-out prevention programs and from universities.

The terms "school drop-outs" and "early school leavers" have been used interchangeably in this paper, as have "school drop-out rates" and "school retention rates". Occasionally, the term "school drop-out prevention" has been used to describe all types of "strategies" (programs, procedures, services and special initiatives) but the paper does present different categories to describe those strategies; namely; prevention, intervention, transition and re-entry.

III. THE EXTENT OF THE PROBLEM

The efforts of educators and researchers to extract accurate early school leaving rates and patterns from journal articles, census data, government reports, and unpublished studies continue to be hampered by the problematic nature of the statistical data reported in these sources. The shortcomings of the current data base revolve around three issues: definitions of early leaving, computational formulas, and student tracking systems. A brief discussion of how each of these problems contributes to the difficulty of determining the extent of the early school leaving phenomenon will provide a context within which the question of rates and trends can be considered.

Problems of Definition

Although pleas for the adoption of a standardized definition have appeared in the literature for almost as long as the issue of early school leaving has been perceived as a problem by educators and the general public, the database on early school leavers continues to be plagued by definitional problems. The frustration experienced by serious researchers is captured in the comments of Barber (1985) who attempted, on behalf of the Phi Delta Kappa Center for Evaluation, Development and Research, to derive a consensus definition:

> We simply cannot agree on what a drop-out is. In some districts, death, marriage, taking a job entering the armed forces, entering college early, being expelled or jailed, going to a deaf school, business school, or vocational school causes one to be considered a drop-out. In another district none of these acts would be so considered ...
>
> There are at least as many definitions of a drop-out as there are school districts recording drop-outs. Some districts solved the problem of who to count as a drop-out by not using any definition at all, whereas other districts had three or four definitions, and neither we nor they seemed to know which one was used. (pp.7-8)

Confirmation of this chaotic state of affairs is provided in the document prepared by the National Center for Education Statistics in which revised guidelines for the calculation of drop-out rates is addressed: "At the present time, accurate and reliable information with which to answer the questions about drop-outs is not available" (Frase, 1989, p.1). As observed by Morrow (1987), the unfortunate result of this state of affairs is that after decades of study and analysis, the infusion of massive amounts of government money, and numerous attempts to create order out of a welter of apparently conflicting results, "A knowledge base regarding school drop-outs, from which programming activities can grow, has not been firmly established" (p. 38). Consequently, "there is little agreement on the direction for school drop-out programming efforts" (p. 38).

At the root of these difficulties is the intransigence of educational authorities in the face of repeated calls for the adoption of a common definition of the phenomenon under consideration. As noted in the 1985 study on Hispanic Student Drop-Outs (cited in Morrow, 1987), "the lack of .... uniformity in definition has kept policy and lawmakers from understanding the nature, scope, and dimension of the drop-out problem" (p.3).

The failure to adopt and use a uniform definition for drop-outs and consequent problems with the validity, reliability, and comparability of available data have hindered policy-makers' and government officials' understanding of the nature and scope of the early school leaving phenomenon and their efforts to respond to it in a constructive and efficient manner. Recent developments, however, fuelled by increasing public concern and the growth of the accountability movement, provide some basis for optimism.

An Historical Perspective

In 1961 The National Education Association (NEA) in the USA initiated the Project on School Dropouts. The purposes of the Project were to raise public and professional awareness of the dropout problem, "to serve as a clearing house for information regarding current programs and research, and to provide consultation to school, agency, government and organization officials" (Schreiber, Kaplan & Strom, 1965, p. 5). In 1965, the managers of the project reported that "innumerable dropout studies and reports" (Schreiber et al., 1965, p. 5) had come to their attention. Their concerns about the quality of the work being done are best stated in their own words:

> It became increasingly evident as these reports accumulated that each was independently prepared with little attention to standardization or uniformity of terms, data reported, or method of calculated in the dropout rate used. On some occasions, in fact, two consecutive reports from the same school system would be totally inadequate for comparison purposes. Indeed, comparability between most of the studies was practically impossible. Furthermore, it was extremely difficult to determine the relative extent of dropping out in the various areas or localities of the country. For a given school district or system, it was difficult to determine which of several approaches was most appropriate for establishing relevant dropout statistics for itself (p.5).

In an attempt to rectify the situation, the Project group prepared a guide: Dropout Studies: Design and Conduct, designed to encourage uniformity with respect to the definition of a dropout, record keeping, and monitoring procedures. The implementation of the recommendations contained in the guide were seen as an essential first step in the creation of an information base to support the work of educators and counsellors with students at risk of leaving school early.

The guide includes a model guidance form that focuses on salient characteristics of the dropout or potential dropout, explicit instructions on how to calculate rates of pupil mobility, a recommended method of computing the holding power and dropout rates for schools or larger jurisdictions, and suggestions about the interpretation and reporting of the findings of individual studies. These concrete proposals were widely disseminated, in the hope that the "limitations" of terminology, research initiation, data determination and collection, and data interpretation-reporting that had "diminished the benefit which these studies might enjoy" (Schreiber, et al., 1965, p. 11) might be resolved.

The definition of a dropout proposed by the NEA Dropout Project group is very similar to the one that has been proposed in recent years as authorities in the field once again undertake to create order out of the chaos that, until the late 1980s, continued to hinder our understanding of the magnitude and nature of early school learning on this continent:

> A dropout is a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school. The term 'dropout' is used most often to designate an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws from membership before graduating from secondary school (Grade 12) or before completing an equivalent program of studies.
>
> Such an individual is considered a dropout whether his dropping out occurs during or between regular terms, whether his dropping out occurs before or after he has passed the compulsory school attendance age and, where applicable, whether or not he has completed a minimum required amount of school work (Schreiber et al., 1965, p. 160).

Similarly, the recommendations regarding a uniform way of computing dropout rates resemble closely the policies and practices that are being proposed by the National Center for Educational Statistics in 1989 (Frase, 1989).

By the late 1960s, educators should have been able to put in place valid and reliable data collection procedures. Unfortunately, for reasons that are not readily discernible, the impact of the Dropout Project Guide to the Design and Conduct of Dropout Studies was not of the order that its authors had anticipated. Thus, two decades later, Mann (1987) renewed the appeal for standardization of dropout data collection procedures. Having argued that the documentation of the magnitude of a problem is prerequisite to its amelioration, he was forced to conclude that "In that regard, the notoriously wobbly nature of dropout data is troublesome" (Mann, 1987, p.12)

Current Definitions

Three basic criteria for a definition have been identified: active enrolment, transfer to another legitimate institution, and granting of a high school diploma or certificate (Morrow, 1987). Each of these criteria contributes to a defensible definition in a different way. The definitions appearing in the literature in the past decade tend to address each of these components.

In the Current Population Survey used by the U.S. Government Accounting Office, dropouts are defined as "person neither enroled in schools nor high school graduate." In other words, if you are not in school and you have not graduated from Grade 12, you are a dropout (Digest of Educational Statistics, 1983-84, p. 45).

Radwanski (1987), in his study on the relevance of education and the issue of dropouts in Ontario, also adopted a simple definition of dropout: "Any student who leaves school before having obtained his or her Grade 12 diploma" (p. 67).

The 1983 Saskatchewan study of early school leavers by Cipywnyk et al. utilized the definition proposed by Reich and Young (1975):

> A pupil who leaves school, for any reason except death, before graduation or completion of a program of study without transferring to another school.

Outstanding Issues

Although there may appear to be a reasonable level of agreement among the above definitions, several problems inherent in the terms used remain to be addressed. As noted above, the answers to three questions are implicit in these definitions: Is the student actively enrolled? If not, has the enrolment been formally transferred to another legitimate institution? Has the student earned a high school diploma or equivalent? (Morrow, 1987)

Active enrolment. The meaning of the category "not currently enrolled" entails operational definitions of truancy and school membership. There is general agreement that truancy means a student's unexcused absence from school without a parent's permission. What is required, however, is a uniform specification of how many days of such unexcused absence should lead to the designation of the student as a dropout.

Similarly, a continuous method of enrolment record keeping must be adopted and implemented. If the noncontinuous method is used, with enrolment books closed in the spring and opened again in the fall, those students who do not return to school after the summer break do not enter the early leaving statistics. To close this gap in accounting for students, school membership should be viewed as permanent, and a student should be removed from the books only in the case of withdrawal through graduation, transfer, early leaving or death.

Transfer of enrolment. The principle to be observed is that the act of early leaving should be associated with the school last attended. Transferring possession of a students' enrolment involves the provision of proof of transfer and the passing on of the responsibility for the student's education.

High school graduation. The third factor that is involved in the definition of early school leaving is the question of what constitutes high school graduation., Provincial variability in this respect is a reality that must be taken into account when interprovincial comparisons are attempted. What must also be recognized, however, is the fact that within each province there may be a variety of routes leading to a completion or graduation certificate, and that the equivalency of such avenues should be taken into account in some manner when a definition is adopted and retention or leaving rates are calculated.

Calculation of Rates

In addition to the definition of early leaver adopted, three computational factors have been identified as influencing the calculation of early school leaving rates: the time frame, the range of grades, and the student accounting procedure used. After a separate consideration of each of these factors, a number of recommendations will be proferred.

Time Frame

The three time frames that have been used to compute early school leaving rates vary with respect to the rates that they yield and the questions that they answer. In essence, they are distinct measures of school retention, and as useful as each may be, they must be interpreted and used in an appropriate manner. The fact that each measure provides a different picture of the extent of early school leaving should be kept in mind when interpretations of reported rates are attempted.

The Event (Annual) Rate

"The transition of a student from being in school to not being in school, without graduating in the meantime, indicates the event of dropping out." (Frase, 1989, p.2) The event rate indicates what percentage of students in a specified grade or set of grades leave school without completing high school within any given year.

It should be noted that when leaving school early is reported as an event, a person is counted as a dropout only for the period during which the event occurred. The information provided by this rate simply indicates how many people leave school without completing high school during a specific time period, and it can be calculated for a school, a district, a province, or the country as whole, provided that a uniform definition is used.

The rate derived from this method of calculating a dropout rate is clearly dependent upon the numbers used in the numerator and denominator of the ratio. As the numerator represents the school's or district's definition of a dropout, an increase in the number of students designated as dropouts will increase the event dropout rate. Conversely, an increase in the size of the pool of students in the denominator, i.e., the pool from which the dropouts originated, will decrease the dropout rate.

The baseline population for dropout computations comprises two components: The grade level distribution and student accounting processes. The implications of policy decisions regarding these parts of the computation formula are discussed in separate sections of this chapter.

The Cohort (Cumulative) Rate

This rate focuses on the educational attainment of a given class or cohort of students, and tracks the dropping out pattern among students who are expected to graduate together. It indicates what percentage of students entering high school (or any specified grade) fails to complete high school on time.

One obvious advantage of this way of computing the dropout rate is that it yields a more accurate assessment of the success or failure of the school's or district's school program than the annual event method.

An equally obvious difficulty inherent in this approach is the determination of an individual's initial status in a cohort, i.e., which members of a class cohort might, in fact, be expected to graduate together (Rumberger, 1987). An example of the kind of specific decisions that need to be made pertains to the inclusion or exclusion of special education students who cannot be reasonably expected to complete high school graduation requirements and are not enrolled in a regular diploma program. Another wrinkle that must be worked out is the question of how students who are spending an additional year or two in high school to complete diploma requirements or upgrade their graduation averages are to be counted. If the concensus definition of dropouts is used, persons who are still attending school are not considered dropouts. Neither are individuals who have any sort of school leaving or an equivalency certificate. This practice raises the question of the status of holders of alternative school or Graduation Equivalent Diploma (GED) certificates and the related issue of the equivalency of the GED to a regular high school diploma.

A final question that must be answered concerns the length of time dropouts should be tracked after they fail to graduate with their class cohort. As noted by Rumberger (1987), this issue is likely to become more important in the future "if more students opt to finish high school at a later time or through alternative means" (p. 106).

Normally, the grade or range of grades selected is the one that is the one most likely to generate dropouts. Because an event rate is an "average" for the entire baseline population, limiting the range of grades included in the denominator dramatically increases the proportion of students designated as dropouts. Clearly, the use of grades 1 to 12 in the baseline population will yield a seriously misleading low rate if the incidence of dropping out is limited to a portion of the pool. On the other hand, the extension of the grade range to include the junior high school grades would be justified if, in fact, a substantial number of students leave school before entering the senior high school grades.

The Status Rate

The percentage of persons in a specified population who are currently not in school, or who left school early and have not subsequently completed high school, can be counted at a given time. This rate reflects the status of individuals with respect to not having completed high school. When reporting on dropout status, a person is counted only until s/he completes high school. The 16- to 24-year olds in the general population are frequently used as the focus of status rate calculations.

Student Accounting Process

Student accounting is the term used to describe the process of tallying the number of students a school or district serves. Traditionally the method used has been either Average Daily Attendance (ADA) or Average Daily Membership (ADM). Although the two methods are related, they yield different annual or event dropout rates.

ADA is the average number of students who enter the school building on a daily basis. In other words, it is a percent of the ADM, and is normally called the attendance rate. Thus, when attendance is used for the population baseline, the dropout rate is higher than it would be if the ADM were used as the population baseline, and the lower the ADA, the greater the difference in the ADA versus the ADM dropout rates.

The implications of the choice to use one or the other number in the denominator become particularly significant when the related decision regarding the range of grades to be included in the calculation reinforces the bias inherent in the ADA option. In sum, the highest rates would be yielded if the school or district chose to both restrict the grade range to the senior high school grades and to opt for the use of the ADA in defining the group from which the dropouts originated., The rate that this ratio would yield would be further inflated if the usual circumstance of higher attendance rates at the elementary level held true for the jurisdiction concerned.

The rates yielded by different grade-level and ADA or ADM combinations in the denominator can vary dramatically. In one of the examples that Morrow (1987) provides in his discussion of this issue, the rates ranged from 4.4% to 19.5%, thereby giving "a great deal of flexibility to those wishing the numbers to say what they want them to say" (p. 47).

Another point that merits the attention of the critical reader is related to the maximum number of days used to define an unexcused student as a dropout. The combination of an ADM approach and carrying a student truant for protracted periods of time inflates the baseline population and yields a low dropout rate. In comparison, because the ADA method does not permit the inclusion of truants in the baseline population, the dropout rate is not artificially reduced.

Tracking Attendance

It appears that while technology is capable of generating such information, to date Canada has not established a centralized national statistical data base capable of tracking students through their school years. Similarly, provincial responses to the dropout issue have tended not to make tracking systems a priority. At both the national and provincial levels, however, access to reliable information based on event and cohort leaving rates is a necessary first step in attaining fiscal responsibility with respect to local and provincial expenditures in this area.

Considering the transiency of the population and the diversity of school programs across the country and within provincial boundaries, such a data base would prove invaluable for compilation of attrition and holding rates in relation to educational modifications and innovations, changes in student support systems, and varying levels of parental, community and business involvement. At the local or district levels it would seem essential that educational personnel have access to specific, consistent data relating to dropout rates in order to fully address school and district budgeting issues, policy and program planning, dropout prevention strategies, personnel distribution, and student funding allocation.

The initiative taken by the American government in charging the National Center for Educational Statistics with the responsibility for designing a national system for monitoring school retention from year to year has already yielded the definitional guidelines discussed above. Given the anticipated establishment of such a system late in 1992, the groundwork for a more sophisticated and responsible approach to the prevention, intervention and re-entry efforts should be in place by the middle of this decade. The federal government in this country may be well advised to proceed in a similar direction.

At the provincial level, the appointment of an attendance officer to support the work of local attendance officers in tracking students and advise local school officials with respect to record keeping policies and practices would be a reasonable way to initiate a more consistent monitoring system and the collection of more accurate provincial and local leaving information. Access to this service would facilitate decisions involving attrition and dropout issues at local/provincial levels and provide a basis for informed investment of resources, whether it be in the form of money, personnel, or program development.

Although an immediate danger of an effective large scale tracking system and easily accessible dropout rates might be inappropriate comparisons among schools, districts, and provinces, the concomitant provisions of explanatory and qualifying information should attenuate the possible negative effects of such comparisons. Moreover, in anticipation of problems of this kind, efforts are already being directed at the development of procedures that would yield adjusted or disaggregated statistics that would reflect differences in the kinds of students enrolled and their early leaving propensities (Rumberger, 1987).

Withdrawal Rates

The growing concern about early school leavers that became a major educational issue in the mid-fifties coincided with the highest retention rates in the history of universal compulsory education on the North American continent. Schreiber (1967) proposed two major reasons for this apparently paradoxical phenomenon, one technological/economic, the other psychological/philosophical. In his words:

> The dropout has suddenly become a problem because, among other reasons, the range and number of jobs requiring little formal education has drastically diminished. And his predicament has become all the more visible as more and more people accommodate themselves to the nearly complete dominance of formal education as the major path to fulfilment. (p.10)

The vast literature on early school leaving, be it analyses of immediate or underlying causes, proposals for prevention, or investigations of consequences, reflects one or both of these foci.

Annual (Event) Rates

The annual withdrawal rates reported in this section should reflect the percentage of students enrolled in high school in a given year who withdrew, either during the school year or during the summer months, prior to successful completion of their senior matriculation year. Unfortunately, this is not always the case. In some school jurisdictions, summer withdrawals and transferees are reflected in the rate reported; in others, the rate is calculated on the basis of withdrawals recorded during the school year only, and transferees are treated as a separate category. Often the method of calculation is not stated. Consequently, the percentages cited should be viewed as reasonable approximations, not as precise indices, of the actual magnitude of the early school leaving phenomenon.

Historical

The annual early school leaving rates reported in the late 50s and 60s tended to fall between 9.0% and 13.0%. Thus, the provincial rates in Ontario were 12.6% for 1962-63, and 10.0% for 1963-64 (Watson, 1975). School jurisdictions with strong pull factors in the economy, in the form of easily available unskilled jobs, continued to report rates of this magnitude in the 1970s. Thus, the rate for Sudbury hovered around 10.0% in 1975-1977. Similarly, Hamilton recorded a rate of 9.2% in 1972, an increase over the 8.4% in 1965 (Stobo, 1973). Metropolitan Toronto jurisdictions, like York and Northumberland, reported 9.0% and 11.9% rates in the early 70s. At this time, inner city Toronto schools were experiencing annual loss rates of 18.0% to 24.0% (Reich & Young, 1975).

On the whole, however, annual withdrawal rates decreased to between 6.0% and 8.0% across the country in the 1970s. The provincial rate for Manitoba for 1973-74 was 7.3% (Manitoba Department of Education, 1975). For Winnipeg, in 1977-78, the rate was 8.03% In Vancouver, the rate for 1970-71 was 5.49%. and for 1971-72 it was 6.4% (Durward and Ellis, 1972). Victoria reported a rate of 6.52% for 1976-77 (Greater Victoria School Board, 1980). Nova Scotia reported a 7.87% rate for 1980 (Nova Scotia Department of Education, 1981). The rate for Saskatchewan from 1976-79 was estimated to be 8.0% (Hepfner, 1979).

In comparison, the Ontario rate had dropped to 8.1% (12.4% if summer withdrawals are included). This higher than average provincial rate was attributed, in part, to the atypical rates among inner city and immigrant groups (Report of the Patterns of Dropping Out Workshop, 1978).

Cumulative (Cohort) Rates

Historical

In both the USA and Canada there appears to be considerable variability in retention rates from one geographical region to another, and across time within such regions, even though the general trend is in the direction of improved retention, with some variations related to the economic climate of a particular jurisdiction.

In 1900, not quite ten out of every one hundred students enrolled in public high schools in the USA graduated (Gilbert, 1977). By 1951, one-half of the Grade 5 cohort could be expected to obtain a Grade 12 certificate. By 1962, this proportion had increased to 66.0%, and by 1972 to 75.0%. The extrapolated prediction from the declining rate of increase reflected in these figures was a 77% Grade 12 completion rate for 1982 (US Department of Health, Education and Welfare, 1975).

The holding power of Canadian Schools has been consistently lower (Gilbert, 1977). An analysis of 1961 census data revealed that 35.0% of all Canadian pupils were still leaving school after completing Grade 8 or less. Another 35.0% were leaving before attaining junior matriculation standing, and only 20.0% were completing high school. In 1965, the proportion completing high school was only 22.0%, or one-third of the percentage reported for the USA in 1962.

When the impressive increase in the holding power of the schools reflected in the American statistics cited above occurred in Canada some thirty years later, the improvement of retention rates was even more dramatic. In the thirty years between 1924-25 and 1954-55, American secondary schools more than doubled their holding power from 30.2% to 64.2% (Ristow, 1965). A similar, but even more marked increase (from 22.0% to 70.0%) occurred in Canada between 1965 and 1975 in just one decade. In Manitoba, for example, the provincial retention rate increased from 36.0% in 1956-59 to 75.0% for 1970-73 (Manitoba Department of Education, 1975).

The reasons adduced for the improvement of the holding power of Manitoba schools between 1956-59 and 1970-73 included: the consolidation of small high schools and the establishment of regional high schools; the introduction of alternative programs, such as the general course; a reduction in the number of compulsory subjects required for university entrance; the provision of alternative post-secondary training through community colleges; and the introduction of departmental regulation allowing credit for innovative school courses and student initiated projects (Manitoba Department of Education, 1975). In sum, the decline in dropout rates during this period was attributable, at least in part, to a restructuring of the educational system in order to accommodate a changing school population.

Current

As noted above, it was estimated that, in 1979, 25.0% of American graduates had left school before completing Grade 12. (Carnegie Council on Policy Studies in Higher Education, 1979), and authorities agreed that little progress had been made in reducing the overall drop-out rate since 1965 (Grant & Eiden, 1982). Rumberger (1987) reported that drop-out rates based on state level attrition data increased from 22.8% in 1972 to 27.2% in 1982, and then remained steady between 1982 and 1984. There were marked variations across states, however, with increases in most, decreases in others, and large urban centres such as New York, Chicago and Los Angeles continuing to report rates as high as 50.0%. (National Center for Education Statistics, 1985).

Canadian rates during this period remained somewhat higher. Statistics Canada (1973, 1975) reported a 29.5% cumulative rate. The rate yielded by a Saskatchewan study for 1981-8 was 31.0% for grades 8 to 12 (Cipywnyk et al., 1983). By 1986-87, it had increased to over 44.0%. In 1987, the cumulative Ontario rate was estimated at between 31.0% and 33.0% (Radwanski, 1987). Moreover, in a case study of seven Ontario schools, it was found that the annual leaving rates had increased from 10.6% in 1983-84 to 15.3% in 1986-87, a substantial increase from the 8.1% (or 12.4% including summer withdrawals) recorded for 1973-74 (Lawton, Leithwood, Batcher, Donaldson & Stewart, 1988). In Newfoundland, the rates reported varied from over 50.0% in 1979, to 33.0% to 44.0% in 1984 (The Early School Leaving Report, 1984).

Annual (Event) Rates

Clearly, the decrease in withdrawal rates from the early 70s to the late 80s was not nearly as large as the overall dramatic decline between 1956-59 and 1970-73 noted above. What is particularly noteworthy, however, is the similarity of rates across the country and the fact that these rates remained remarkable constant for over a decade. Given a similar tapering off of retention rates in the U.S.A., it may be reasonable to ask whether early school leaving rates can be reduced much further without fundamental and far-reaching changes in an educational system that has remained relatively immune to innovative content and processes. As Ristow (1965) anticipated, lowering the dropout rate further than to a cumulative 30.0% would be difficult and costly:

> There is serious doubt that we should expect to reduce the dropout rate very much below 30 per cent. Schools have established programs to deal with all except the most difficult cases. Further reduction in the number of dropouts would require the addition of more highly trained and specialized personnel, vast increases in facilities, and costly materials. Only when we are willing to add substantially to the financial support of education may be expect a further reduction in the dropout rate. (p. 463)

Subsequent observers have sounded essentially the same warning about a possible "irreducible core". Thus, Kruger (1969) argued that "as the dropout rate decreases, the educational task actually becomes more difficult because the salvage effort converges upon those who make up the very 'hard core' of the problem" (p. 8).

In sum, event (annual) and cohort (cumulative) leaving rates have not declined appreciably over the past quarter century. What does seem to have changed, however, at least in the USA is the status rate, i.e., the proportion of 16-24 year olds who have not attained the equivalent of a high school diploma.

Status Rate

This rate in the U.S.A went down from 20.0% in the 1960s to between 13.0% and 14.0% in the mid 1970s (Hahn, Danzberger & Lefkowitz, 1987, p. 11). Other sources lend support to the observation that a significant proportion (46.0%) of early school leavers in the USA are going on to earn a diploma or an equivalency certificate within four years of the date when they should have graduated. Thus, although 17.3% of the sophomores in 1980 left school early, only 9.2% had not completed a high school or certificate program by 1986. From this perspective, dropout rates can be viewed as not having increased in the 1980s.

Other American studies indicate that one-third of early school leavers return to school within one year of dropping out. The High School and Beyond Study data show that 17.0% were enrolled in school, and 14.0% had received a high school equivalency certificate. Another 20.0% had participated in job training or other non-formal educational activities.

The Canadian situation provides less of a basis for optimism. A marked increase in the number of students (approximately 6,000) in the 20+ age group in high schools between 1981 and 1988 suggests that a growing number of young adults are returning to school to complete their secondary education. (Canadian Education Statistics Council, 1990). According to this same source, graduation rates have increased in the past two decades from the 40.0% to 50.0% range in 1971, to the 60.0% to 75.0% range in 1989 (p.30). Finally, the ratio of Grade 12 enrolment to Grade 9 enrolment three years earlier has increases over the same time period from 55.0% in 1970 to 75.0% in the mid-80s (p.30)

Karp (1988), on the other hand, reported that although almost one-half of the Ontario dropouts in her study had attempted to return to school , only 29.0% had gone on to receive a diploma. In Toronto, one in four drop-backs succeeded in completing high school requirements, a higher proportion than in rural areas. It should be noted that 70.0% of those who continued their secondary education stated that their drop-back situation was superior to their original school experiences. Correspondence courses were considered a particularly positive method of completing their education, as they could proceed at their own pace, on their own time.

The above findings speak for themselves. In this particular sample of Canadian leavers, slightly more than one-quarter attained a high school certificate within four years of leaving school. This percentage is well below the 50.0% completion rate reported for American leavers. Clearly, the answer in this country to the early school leaving problem does not lie in re-entry or alternative post-leaving programs - at least not as they are currently constituted.

Summary

In order to compile accurate statistics concerning the extent of the early school leaver populations, a common definition should be adopted that would be used provincially (or nationally, if possible). Until a uniform provincial system of calculating the dropout rate is developed and adopted by local school systems, dropout prevention efforts will be hampered by lack of specific knowledge about district and individual school dropout rates.

The distinction among the three early leaving rates described in this section, the delineation of critical components of a definition of a dropout, and the clarification of the differential impact of established ways of record keeping on reported dropout rates constitute a basis for a major shift in the manner in which educational institutions and other agencies perceive and respond to early school leaving. The adoption of a uniform definition and dropout computation procedures is a necessary condition for progress in an area in which research and education and societal response have been mired in a morass of conflicting findings, conclusions, and recommendations.

The first step in this process is convincing everyone responsible for the development and implementation of educational policies related to record keeping and student monitoring that the cause is an important one, and that the social benefits of initiating long overdue changes will more than justify the initial costs and difficulties involved.

IV. THE NATURE OF THE PROBLEM

Variability of Rates

The fact that the annual early school leaving rates are quite similar across provinces and school districts does not mean that these rates can be generalized to other jurisdictions. Although the general trend towards improved school holding power holds true across the country, an annual average rate for any school jurisdiction masks a great deal of regional and institutional variability. Moreover, any true understanding of the nature of the phenomenon within a region, a town or city, or an individual school, mandates further analyses by sex, grade, age and achievement level.

Moreover, "any estimate of dropout rate, no matter how accurate, applies only to a specific and rather limited period of time" (Bachman 1972, p. 24). The sensitivity of withdrawal rates to regional and local economic conditions, to societal expectations, and to availability of alternative training programs, makes their prediction difficult, particularly for identifiable subgroups within the total population of early school leavers.

Region

Two examples will suffice. Watson's (1975) Ontario study yielded an overall September to June early school leaving rate of 8.1%. The rates of withdrawal across the nine regions involved, however, varied from 7.1% to 12.4% for boys, and 5.4% to 9.0% for girls. Among the 26 school districts the variability was even more pronounced: 4.0% to 14.3%. The smallest range within a school district was 6.6% to 8.8%; the largest was 4.9% to 52.4%. More typical ranges were 4.1% to 15.1%; 2.7% to 20.8%; 3.8% to 11.1%; 1.8% to 24.4%; 2.6% to 9.8%; and 2.2% to 28.2%. Clearly, regional, board, and institutional differences were large enough to preclude generalization from one part of the province to another, much less from one school to another.

In this same study, the annual withdrawal rate of 6.1% masked considerable inter-grade variability: Grade 9 (4.6%); Grade 10 (7.8%); Grade 11 (10.5%); Grade 12 (8.1%); and Grade 13(9.8%). Moreover, the proportion of leavers at each grade level varied a great deal across regions: Grade 9 (3.2% to 6.8%); Grade 10(6.3% to 11.2%); Grade 11 (7.2% to 11.7%); Grade 12 (5.7% to11.8%); and Grade 13 (7.6% to 12.5%).

A provincial survey conducted in Manitoba in 1973-74 (Manitoba Department of Education 1975) provides similar evidence of inter-and intraregional variability. The provincial average of 7.3% reflected regional averages of 6.6%, 8.1%, 8.3%, and 9.2%. Within regions, the rates varied from 2.2% to 8.1%; 4.0% to 10.0%; 5.1% to 10.6%; 4.1% to 9.9% and 5.8% to 19.4%. The ranges for schools within a region were of similar magnitude to those noted above for Ontario (Watson, 1975).

Time

To illustrate variability over time another two examples will be drawn from the Canadian literature. Withdrawal data for the Greater Victoria School District for the years 1978-1980 suggest the need to compile information annually for a number of years as a basis for identifying trends, patterns, and correlates of early school leaving decisions. Thus, in 1977-78, Grade 12 students constituted

19.0% of the total withdrawals for that year; in 1978-79 they accounted for 13.0% of the leavers; in 1979-80, this proportion increased to 24.0%. Similarly, Grade 11 students constituted 32.0% of the withdrawals in 1977-78; 36.0% in 1978-79; and 29.0% in 1979-80 (Greater Victoria School Board, 1980. On the other hand the withdrawal rates by grade in Vancouver between 1969-70 and 1971-72 were remarkably constant (Durward & Ellis, 1972).

In short, any jurisdiction interested in determining the extent and nature of early school leaving within its boundaries would be well advised to use existing studies and provincial or regional rates and demographic profiles only as a framework within which to collect information pertinent to its specific situation.

Gender

Boys have consistently been over-represented in early school leaving statistics, with the proportion of male withdrawals in major Canadian studies varying from 51.6% in Hamilton (see Stobo, 1973), in 1965, to 63. 0% in Port Arthur in 1960 (Sellick, 1964/65). In province-wide surveys the proportions reported tend to fall in the upper part of this range: 56.0% in Nova Scotia for 1979-80 (Nova Scotia Department of Education, 1981); 58.1% in Ontario for 1974-75 (Watson, 1975); 56.0% in British Columbia for 1977-78 (British Columbia Department of Education, 1980).

In British Columbia, (British Columbia Department of Education, 1980) it was found that sex differences increased with grade, with males accounting for 51.0% of the withdrawals in the lower high school grades, and for 55.0% at the upper levels.

The annual withdrawal rates by school district yielded by the 1974-75 Ontario study (Watson, 1975) confirmed the overall finding of higher proportions of male school leavers, and revealed a great deal of regional variability.

In Winnipeg (1978-79), there were no age-related differences in rates between males and females at any of the grade levels (Winnipeg Inner City Education and Recreation Coordinating Committee, 1980). The pattern of withdrawals reported by Watson, 1975, on the other hand, suggested that the older the leaver, the more likely he was to be male. For 16 year-olds the male/female split was 54.2: 45.8; for the 17-year olds, 55.9: 44.1; for the 18-year-olds, 62.8: 37.2; for 19 year-olds, 71.7: 28.3; and for those 20 and older, 67.0: 33.0.

Finally, in the 1974-75 Ontario study (Watson, 1975) clear relationships between sex and achievement emerged. While overall, only 28.0% of the withdrawals were F students, 65.0% of them were males. Conversely, the high achievement leavers were disproportionately female, representing 58.0% of the As, 54.0% of the Bs, 47.0% of the Cs, 41.0% of the Ds, and 35.0% of the Fs.

The questions raised by Stroughton and Grady (1978) in relation to the overall sex differences in rates, and the even more pronounced pattern of male underachievement suggested by the literature, reflect the kinds of concerns that have been expressed by researchers and writers in this area for several decades:

> Is there discrimination by sex in the schools? Is there some negative female teacher modelling effect? Are the expectations held for high school students sex-linked?... Are schools meeting the needs of all their students? Are there new approaches to

enable all students to graduate from high school? ... Are our dropouts primarily pushouts? (p.315)

Age

The most commonly reported median school-leaving age in Canadian studies is 17+, with a range of 16 to 18. In Vancouver, 17- and 18-year-olds made up the largest proportion of early leavers in 1970-72 (49.4%). In 1977-78, the majority of withdrawals (54.0%) occurred at ages 16 and 17 (British Columbia Department of Education, 1980).

A similar withdrawal pattern was identified in the 1974-75 provincial Ontario study (Watson, 1975). Nearly 65.0% of the early leavers withdrew from school when they were either 16 (35.53%) or 17 (28.93%) years old. The proportion continued to decrease with increase in age, so that 25.81% of the leavers withdrew at age 18, and only 7.43% at age 19.

Halifax 1979-80 withdrawal rates (Halifax Board of Education, 1981) are consistent with the British Columbia and Ontario studies. Nearly 67.0% of the leavers were 16 (34.4%) or 17 (32.54), with a drop to 20.2% at age 18, and another drop to 6.9% at age 19.

On the other hand, in the Borough of York in the Toronto metropolitan area (Stobo, 1973), the proportion of total leavers increased with age from 28.0% at age 16, to 33.0% at age 17, and 38.5% at age 18. The sex differences were pronounced at the ages of 17 and 18, with boys accounting for 28.0% of the withdrawals at age 17, compared to 38.0% for girls. The direction of the difference then shifted dramatically, so that at age 18, 43.9% of the leavers were boys, and 34.2% were girls.

Recent Ontario studies indicate that most leavers in that province are 16 or 17 years old when they withdraw from school (Lawton et al., 1988). The following discussion of rates by grade complements the statistical summary provided in this section.

Although a trend towards leaving school at a younger age seems to be emerging, the variability noted with respect to sex of leaver is pronounced and makes it difficult to draw definite conclusions. As for other relationships, the sensitivity of patterns to local conditions suggests that great caution be exercised in generalizing from one part of the country to the other.

Grade

The tentative finding that the average age of withdrawal decreased between the late 60s and late 70s is confirmed by grade placement data. In Vancouver in 1970-72 (Durward & Ellis, 1972), 46.6% of the early school leavers withdrew in Grades 10 and 11. In 1977-78, in 26 British Columbia school districts (British Columbia Department of Education, (1980), this proportion increased to 54.0%. Between 1977-80 (Greater Victoria School Board, 1980) the proportion withdrawing in Grades 10 and 11 was 62.3%, with a high of 70.0% in 1978-79. The shift back to 57.0% in 1978-80 was compensated for by a substantial increase for Grade 12, from 13.0% in 1978-79 to 24.0% in 1979-80. A similar proportion (54.0%) of the withdrawals in the Borough of North York (Stobo, 1973) took place in Grades 10 and 11.

In the 1974-75 Ontario study (Watson, 1975), the annual withdrawal rates varied both by grade and region. The rates by grade were 4.6% (Grade 9), 7.8% (Grade 10), 10.5% (Grade 11), 8.1% (Grade

12), and 9.8% (Grade 13). Across the nine regions, however, the variability within each grade level was pronounced.

The loss rate by grade varied even more dramatically from board to board. Generally, Grade 13 had the highest loss rate (16 out of 26 boards). In the others the highest loss rate was in Grade 11. In no case did Grade 9 show the highest loss rate. In short, the smaller the unit of analysis, the greater the amount of variability uncovered.

Forty-six percent of the total withdrawals were from Grade 11, 33.6% from Grade 12, and 20.4% from Grade 13. Very similar proportions were found for 1972-73 and 1973-74. This constancy of the distribution of withdrawals suggests that Grade 11 was the peak withdrawal year between 1972 and 1975 in Ontario (Watson, 1975).

In Nova Scotia, in 1980-81, the annual withdrawal rates by grade were roughly comparable to those reported for 1974-75 in Ontario in relation to the year of senior matriculation. The peak occurred in Grade 10 (20.1%), then tapered off to 16.5% in Grade 11 and 11.9% in Grade 12.

In Saskatchewan (Cipywnyk et al., 1983) the leaving rates for rural students peaked at 11.94% in Grade 10. In urban centres the rate increased monotonically from less than 1 percent in Grade 8 to 14.29% in Grade 12.

An unpublished replication of the 1983 Saskatchewan Study confirms the monotonicity of the Grades 8 to 12 leaving rates, but an increase in the percentage of students withdrawing at each grade level changes from 1.0 to 1.24% in Grade 8 and from 14.29% to 18.47% in Grade 12. Between the 1981-82 and the 1986-87 school years, the percentage of students withdrawing from Grade 10 increased from 9.66% to 14.22%; for Grade 11 the increase was larger, from 9.87% to 16.11%. The most dramatic increase, however occurred at the Grade 12 level; 11.93% to 18.47%.

Recent Ontario data indicate that the majority of school leavers withdraw in their senior years. Of the total number who left in 1986, 3.50% left in Grade 11, and 3.40% left in Grade 12 (King et al., 1988) . Over one-fifth, however, left in Grade 10, primarily from the Basic (modified) program.

Variability of Leavers

Miller (1967) correctly identified one of the major shortcomings of articles pertaining to early school leavers.

> Discussions about dropouts are too broad and too narrow. They are too broad because they seem to assume that the category of dropout is a homogeneous one and that little variation exists within the category. The discussions are too narrow because they do not adequately look upon the problems of dropouts as economic and political issues, but mainly as educational ones (p. 184).

As an example of the first problem, Miller (1967) noted the tendency in the literature to ascribe early school leaving to socioeconomic determinants. While conceding that 70.0% of early school leavers come from low-income families, he pointed out that 60.0% of all high school graduates have a similar background. "Thus, not all dropouts are from low-income families, nor do all low income youth become dropouts" (p. 185). Most studies, however, neglect low-income graduates and middle-class leavers. To rectify this situation, Miller (1967) described several types of leavers within the two general socioeconomic class categories.

Miller, 1967

The three types of middle-class leavers that he proposed were 1) those with school-related emotional difficulties, 2) those with emotional difficulties not related to school, and 3) those whose families are economically or educationally only marginally middle-class. Although, in general, these three types of middle-class leavers constitute a minority of school withdrawals, their proportion may vary a great deal from one school or jurisdiction to another.

The four types of low-income school leavers were conceptualized around their perception of and relationship to formal educational processes: 1) the school-inadequate, 2) the school-rejecting, 3) the school-perplexed, and 4) the school irrelevant.

In Miller's (1967) view, the school-inadequate leavers constitute a smaller proportion of total withdrawals than is generally assumed. This group is characterized by low intellectual ability and/or poor emotional functioning.

The school-rejecting group is seen as "propelled by a push away from school" (Miller,, 1967, p. 187). The students in this sub-category tend to find schools "confining, unuseful, and ego-destructive" (p. 187) and school personnel often would like them to leave. Consequently, they may be "pushed out, and frequently in a fairly direct way" (p. 187).

The plight of the growing number of school-perplexed leavers is portrayed as a tragic one. Many have high educational aspirations, but little command of the processes involved. In the author's opinion, the responsibility for the failure and withdrawal of these students lies squarely with the schools.

> If aspirations are very low, then we are told that cultural barriers inhibit educational achievement; if aspirations are high, then we are informed they are unrealistic. I think that we are saying that we do not know how to deal with the kinds of educational concerns and problems many low-income families and youth have (Miller, 1967, p. 189).

The bulk of low-income leavers, however, fall in the school irrelevant category. They tend to value education instrumentally only. Given that high school graduates do not fare much better than late leavers with respect to occupational and economic success, and that college attendance, the key to higher status, is not within the reach of most of these students, their withdrawal from school may not be as irrational as it may seem.

Voss, Wendling and Elliott (1966)

Voss, Wendling, and Elliott (1966) argued that "an effective response to the problem of high school dropouts will only be possible after order is imposed on the heterogeneous data available" (p. 383). In their perception, this could be best accomplished by acknowledging that adolescents who withdraw from school do not constitute a homogeneous group, thereby resolving pseudo-issues generated by what appear to be contradictory findings and permitting appropriate differentiation of preventive and rehabilitative measures.

Having analyzed the apparently varied findings reported in the literature regarding levels of intelligence, difficulties with reading, grade retardation and poor grades, they proposed a typology as "a means of integrating available evidence" (p. 383).

With respect to ability, they concluded that a certain proportion of early school leavers tend to be of below average academic ability. These leavers also are likely to be the ones who withdraw from school early, often before or immediately after entering high school. A larger proportion of leavers, however, are of average ability, and a relatively small number are of above average ability. The latter tend to leave school during the senior high school grades. In sum, the conflicting results "differ primarily... as a consequence of the failure to differentiate between early and late school dropouts" (p. 385). In short, students with limited ability are the first to leave school.

School dropouts show a general decline in academic achievement from the primary to the high school grades. In the case of late leavers, this discrepancy is likely to be less pronounced, probably because there appears to be little difference in ability between them and high school graduates. They are not as likely to be impeded by reading difficulties, and they are less likely to have repeated a grade or taken more years to complete elementary and junior high school.

The typology proposed by Voss et al. (1966) included three types of early school leavers: "1) the involuntary dropouts, 2) the retarded dropouts, and 3) the intellectually capable dropouts" (p. 388).

Involuntary dropouts, i.e., students whose decision to terminate their education is not consonant with their wishes constitute a small minority of early school leavers, particularly if the typology is confined to those who are academically capable. The factors that precipitate early withdrawal in these cases, such as health or family reasons, preclude its prediction.

Retarded school leavers are "those who are not capable of doing the necessary work required for promotion to higher grades and eventual graduation" (p. 389). In general, this group is characterized by low scores on intelligence and achievement tests, poor grades, grade retardation , and reading disabilities. A smaller number of achievers have at least average scores on performance measures of general ability, i.e., they possess the innate ability to succeed academically, but are underachieving because of low reading ability. The distinction between these two sub-types is, of course, a critical one. In the final analysis, however, unless the reading problems of the normal ability potential leavers are remedied early in their school career, their destiny will not differ from that of their retarded peers.

Intellectually capable early leavers pose a serious challenge to the educational system and society as a whole. Possessed of average or high native ability, and at least adequate reading skills, they nevertheless do not, as a rule, make satisfactory academic progress. In general, their achievement level may be "adequate", i.e., Cs and Ds, but well below their level of ability. In some cases, however, their average grade is a failing one. The capable school leaver, then, is underachieving because of a lack of motivation, or a failure to identify with the goals of the school, or a conscious rejection of the formal educational system and everything that it represents. In some cases, the problem may be best described as one of serious personal or social maladjustment, a condition that cannot be treated with the resources available in most schools.

Explanations of why the majority of capable leavers, i.e., the unmotivated or alienated, withdraw from school prematurely would require interactive research designs incorporating the psychological and sociological variables affecting the orientation and behaviour of these students and the educational philosophies and practices of a variety of contemporary schools settings. Only this kind of systematic and focused approach would make it possible to develop effective preventive strategies for use with this small but important subgroup of early withdrawals.

Reich and Young (1975)

A different kind of delineation of types of leavers or "patterns of dropping out," rooted in descriptive data and organized around the construct of alienation, was developed by Reich and Young (1975). Reflecting the particular economic conditions and social and ethnic composition of inner Toronto schools, the patterns identified may or may not be generalizable to other jurisdictions. The framework within which this study was conceptualized, however, is useful one, and the differential implications for school practices associated with the categories identified constitute a potent argument for replications of Reich and Young's (1975) efforts in other settings.

Although very few of the early leavers in this study were doing well in school, "there were several very distinct patterns of personal and social factors associated with the lack of a high level of achievement" (p.7). Six major patterns were identified; 1) Classic, 2) Work Oriented, 3) Homemaker, 4) Family Supporter, 5) Cultural isolate, and 6) Intellectually Elite.

As was found in the 1974-75 provincial Ontario study (Watson, 1975), the "Classic Dropout" of the American literature was judged to fit only 23.0% of the Reich and Young (1975) sample. "These are the hostile, aimless, troubled students, whose withdrawal from school is merely a retreat from an unpleasant situation" (p. 7). Having earned fewer credits, and with a lower grade point average than the sample as a whole, they were more likely than other leavers to withdraw from school at 16. Consistent with the classic dropout profile, there were relatively few girls in this group.

According to Reich and Young (1975), "For the remaining 77.0% in our sample, leaving school was a positive act that served very real and immediate needs or fit into their goals for the future" (p. 8). The largest group (53.0%) in this general category was defined as Work Oriented. Characterized by borderline achievement, and having determined an alternative life style, that of the adult worker, as more compatible with their interests and abilities, these students preferred work to school and left when they got a job. This group had fewer girls than boys in it.

A similar group (6.0% of the total sample) made up of girls, was the Homemaker category. Marginal students, these girls' primary orientation was homemaking and raising a family. In a sense, the Work Orientated and Homemaker categories "represent sex-related alternatives for a certain kind of student" (p. 9).

A fourth category, the Intellectually Elite, comprised high ability students who had the capacity to do well in school, but have "renounced the system" (p. 9). Constituting only 3.0% of the total sample, these students tend to be the oldest leavers and the closest to attaining senior matriculation. Almost all of them were in the academic program, and most were girls.

The two remaining groups were deemed peculiar to Toronto, where 48.0% of students in the mid-70s were first- or second-generation immigrants. The Family Support Group, 7.0% of the sample, came from families in which older children were expected to help in supporting the family. Almost half had left school at the age of 16, even though their potential for academic work was quite high.

The Cultural Isolate category, 2.0% of the total group. had a language problem, and were socially isolated in school. Generally recent immigrants, they tended to be older than the leavers in other groups. Two-thirds were female, with fairly good grade point averages.

Zamanzadeh and Prince (1978)

Zamanzadeh and Prince (1978) labelled one subgroup identified in their Montreal study as "the family tradition dropout." Their parents and siblings have left school without attaining senior matriculation, their family values do not centre around educational attainment, and the leaver's poor academic performance is expected and accepted.

"Disturbed early school leavers," i.e., those with a history of personality disorders and family pathology, were characterized by school adjustment problems. Unable to develop cooperative personal relationship they tend to carry their burden of maladjustment into life after school.

Another etiological category was "the black sheep dropout." A child in this subgroup is cast in the role of "the stupid one of the family" or "the trouble maker." Treated differently from other children in the family, the child fulfils the negative expectations associated with this designation.

Morrow (1986)

Morrow (1986) identified five types of early school leavers: 1) pushouts (undesirable students), 2) the disaffiliated (students who no longer wish to be associated with the school), 3) educational mortalities (students who failed to complete a program), 4) capable dropouts (students whose family socialization did not agree with school demands), and 5) stopouts (students who return to school). This typology is essentially descriptive, and does not contribute to the literature on drop-out variability in a significant way.

Kronick and Hargis (1990)

The typology proposed by Kronick and Hargis (1990) has a different focus. Group A, the largest group, is composed of the "quiet" or "invisible" dropouts who go unnoticed until they leave. These achievers have experienced continued failure in school, and they tend to leave as soon as they are legally able to do so. "Their primary distinguishing characteristic is their stoicism" (p. 7).

Group B are also low achievers with a record of chronic failure, but they react to failure by acting out and drawing attention to themselves. Moreover, they avoid failure by avoiding school. "Suspension and expulsion are the means by which these students are purged or pushed out of the system. They are punished for their behaviour while in school and they are punished if they try to avoid school" (p. 8).

Group C is the smallest, as it comprises students who have adequate or superior academic potential. Most are at odds with a rigid curriculum structure, and are sometimes characterized as "the bright and bored". Others may be casualties of family mobility, poor health, or emotional trauma, and are best handled by service agencies outside of the school.

Group D students are not dropouts, except in the psychological sense. "They have dropped out of learning, even though they physically remain in school". Their academic potential is low, as is their achievement level, and they have managed to stay in school because of compensating factors such as athletic ability. In general, they have a higher tolerance for failure experiences and a stronger self-concept than their early-leaving peers, and may graduate or at least earn leaving certificates.

Variability Of Consequences

Employment and economic status. The problems inherent in follow-up studies, compounded by varying definitions of employment and discrepancies between stated plans and actual activities, make it difficult to derive valid summary statements from reported studies. Changes in the socioeconomic context and employment situation over time complicate matters even further. In this section, there will be no attempt made to sort out statistical arguments advanced by educational personnel and spokesmen for the world of industry. The only materials reviewed will be empirical studies designed to determine the fate of school leavers compared to their graduating peers.

Canadian data from the 1950s and 1960s support the popular view that a generation ago early school leavers were not seriously handicapped, either socially or economically. A cohort of 1957-58 early leavers in Alberta (Vincent & Black, 1966), compared to graduates, demonstrated similar employment and satisfaction patterns six years after they had withdrawn from school after completing Grade 11. Although nearly half had experienced some periods of unemployment, job stability predominated, as did above average incomes. In the perception of their employers, the leavers performance was generally satisfactory. Moreover, education level was deemed a factor of minor significance in job success.

By the early 1970's the situation was clearly changing and leavers were finding themselves at a disadvantage relative to their graduate peers. According to school records, one-half of the withdrawals from Vancouver schools in 1971-72 (Durward & Ellis, 1972) expected to seek work or had a job opportunity.

Unfortunately, reality may not match stated expectations, a fact that should be kept in mind when "destination data" are examined. Thus, while 80.0% of low ability graduates (average I.Q.=86) in a London Study (Small, Wilson & Stennet, 1973) were permanently employed at the time that they were interviewed, only 57.55% of the leavers were working. Moreover, the graduates had experienced fewer job changes, fewer periods of unemployment, and substantially higher weekly earnings. Unemployment insurance was claimed by 20.0% of the graduates, but only 13.3% of the leavers. Conversely, welfare was the source of income for 20.0% of the leavers, and only 10.0% of the graduates.

In more heavily industrialized part of the country, early leavers were already experiencing negative outcomes in the mid 60s. School withdrawals from the Oshawa secondary school system in 1965-66 (Oshawa School Board, 1968) were expecting to be absorbed into the unskilled ranks of the local labour force. On the other hand, the greatest problem facing Oshawa industries was a lack of skilled journeymen, technologists and office personnel, all of which required a Grade 12 certificate. As Whitworth (1966) observed "the tragedy is that during periods of high unemployment, there are as many vacancies as unemployed" (p. 78), with a similar disjunction between skills and educational level on the one hand, and positions available, on the other.

The following information about the post-school activities of Ontario school leavers in the mid-70s comes from the Watson (1975) provincial study.

At the time of contact, one year after leaving school, the largest group of leavers was employed; 49.0% were working fulltime, while 13.0% had part-time jobs. Only 5.4% were studying full-time or part-time. Moreover it was the academically more capable leavers who were either back in school or studying elsewhere.

The higher the grade left, the greater the proportion of its leavers who were working. Over one-half of the withdrawals from each of the upper three grades were employed full-time. Whereas only 4.2% of the Grade 9s and 46.0% of the Grade 10s had fulltime jobs.

The proportion of unemployed leavers increased from 10.0% in 1972-73 to 20.0%-21.0% in 1973-74, and 28.0% in 1974-75. In general, the lower the grade and achievement level, the higher the probability of unemployment.

Grade 13 withdrawals tended to have study plans while the Grade 11 and 12 leavers were job oriented. The Grade 9 leavers were under-represented with respect to both study and job plans, and 10s on study plans.

Five years later, Warren and King (1979) found that more leavers (29.0%) than graduates (17.0%) from the General Program were unemployed. Their data, however, confirmed the (Bachman et al., 1974) conclusion about the similar work situation of graduates and leavers who were employed. Those who had worked had not held different jobs; almost all were low level with little opportunity for advancement.

The incidence of re-entering among Grade 9 leavers was low; for Grade 10s it was at the expected level. In the case of upper year leavers, re-entering was higher than would be expected but a greater extent than other leavers, re-entering leavers tended to be unemployed, their parents were likely not to have approved their initial decision to leave, and school-related reasons had contributed significantly to their decision to withdraw.

In a American longitudinal follow-up study of early leavers and high school graduates who did not go on to College (Combs & Cooley, 1968) found that the percentage of male leavers and controls with jobs in 1964 was similar; however, there was a slight tendency for graduates to hold higher level jobs. Moreover, it was the graduates who were more likely to further their education after high school. Although many of the consequences of leaving school early may not become apparent until later in life, at the age of 19 graduates already had an economic advantage over their early withdrawal peers.

A decade later, Bachman, O'Malley and Johnston (1978) found that eight years after having been in Grade 10, male early leavers were not disadvantaged with respect to the earnings of those who were employed; they were however twice as likely to be unemployed as graduates: 15.7% to 8.3%. When the background and ability levels or the early leavers were controlled, there was no attenuation of their disadvantage. Thus Bachman et al, (1978) concluded that the causes of school withdrawal contribute to greater unemployment.

By 1974, eight years after the study began, when the average age of the participants was 23.4, approximately 10.0% of the early leavers had completed high school. The great majority (73.0%) were craftsmen, operators, service workers, or nonfarm labourers, with 52.0% in the lowest categories. The distribution across occupations of high school graduates, however, was very similar, with a difference only in the clerical and males category which included 10.0% of the graduates and only 3.0% of the withdrawals. The occupational status of college graduates, on the other hand, was "substantially different from all lesser levels of educational attainment" (p. 61).

A number of other work-related consequences have been identified in the American literature. Dropouts are only one-third as likely as graduates to be white-collar workers; their opportunities for advancement are fewer and they are less satisfied with their jobs (Howard & Anderson, 1978). They experience "occupational entrapment", and over a lifetime they will earn one-fourth less than graduates.

In an attempt to identify the specific contribution of leaving school early, McDill, Natriello and Pallas, 1987) concluded that about half of the difference in lifetime earnings is due to differences in ability and other factors, and about half is due to the effects of dropping out.

A more recent comparison of the lifetime earnings of high school graduates and leavers showed that by 1982, both male and female leavers, 25 years of age, were earning about one-third less than their graduate peers, a marked increase over the one-fourth observed in the mid-70s. Specifically, the loss in adjusted lifetime earnings for the leavers was estimated at $215,000, with males losing $260,000, and females $170,000 (U.S. Department of Commerce, Bureau of the Census, 1983). To place these amounts in perspective, it should be noted that, in 1981, 36.0% of leavers and 21.0% of American high school graduates (who were not in college) were unemployed.

In Canada, the 1986 Report of the Royal Commission on Employment and Unemployment confirmed the American statistics, and concluded that leavers are likely to be caught permanently in a pattern of low paying work and the highest unemployment rates in the general population.

Given the data cited in this section, the kinds of conclusions drawn on the basis of reported relations between leaving school early and the quality of life experienced in adulthood merit critical consideration. A common position is that previously the labour market was able to absorb most young people with a limited educations, but increasingly the lack of a high school diploma is tantamount to a denial of employment; therefore, in order to be employable in other than the most menial work, those entering the labour market will certainly have to master the core competencies that should be acquired in high school (Berlin & Duhl, 1984; National Academy of Sciences, 1984).

What seems to be overlooked in this line of reasoning is the fact that although high school graduates with no post-secondary training appear to be more "employable", the actual work experience and earnings of graduates and leavers do not differ. It would seem that it is the "unemployable portion of the leaver population that accounts for the observed differences in lifetime earnings. (More fundamentally, the fact that high school diploma does not lead to better employment opportunities than those available to leavers continues to elude most observers.) The notion of employability, as noted by Bachman et al. (1974) and McDill et al. (1986) must be considered in the context of factors that contributed to dropping out and continues to affect employers' views of the work performance of early school leavers.

In an intensive study of early school leaving in Ontario, Karp (1987) interviewed both leavers and employers. The perceptions of both these groups are consistent with the general view that a high school diploma matters in the workplace.

Two in three dropouts felt that it is important to have a high school diploma when looking for work. A similar proportion of employers inquire about a prospective employee's level of education, while three in four consider a high school diploma somewhat important", (with 30.0% indicating it as "very important".)

Moreover, when leavers do manage to obtain work, employers compare them unfavourably in all areas evaluated.

Dropouts are viewed as less self-confident (by 56.0% of employers), less ambitious (45.0%) less motivated (44.0%), less dependable (38.0%), and less creative (37.0%). They are also judged to have worse problem-solving skills (by 51.0% of employers), poorer decision-making skills (47.0%), less self-discipline (44.0%), a lower level of general knowledge (43.0%), less commitment to their work (35.0%) and poor ability to work with others (21.0%).

The characteristics differentiating graduates and leavers in the Ontario study clearly have both cognitive/academic and affective/social components.

These two sets of characteristics, which may be related to both school withdrawal and to subsequent work experiences are discussed in Chapter V.

A Gradual Withdrawal

The actual process of dropping out of school needs to be discussed in describing the nature of the problem. Research has shown that the process of withdrawal from school is long, gradual one beginning early in school life. School failure, retention in a grade, inconsistent attendance and other observable events reflect the gradual severing of the connection between school and student. Academic failure is a critical element in this gradual weakening of the bond between student and school.

The Real Purpose of School Retention: Learning

Finally, it is useful to remember that the goal of school retention is not necessarily the obtaining of a High School Leaving Certificate; it is to retain students in school so that they are sufficiently prepared to lead productive lives when they leave school. Thus, it might be considered to be a "success" if a student leaves school at the end of Grade 10 (with adequate literacy skills and general knowledge) to take a good job in a local mining company provided he/she is motivated in continue his or her learning in company programs, college continuing education programs or other formal or informal programs. Conversely, it should be considered a "failure" if we persuade students to complete high school if they simply endure programs which are inappropriate for them.

A Consensus Among Respondents

A questionnaire was used to ask respondents in the national consultation undertaken as part of this project to rate the importance of several statements describing the problem of school drop-outs. A common understanding of the problem is necessary before consideration should be given to any potential solutions, let alone what research should be done to evaluate such potential solutions.

It should be noted that project timelines, the small size of the sample and the survey procedures used all limited the scope of the questionnaire results. They should be considered only as an indication of what a proper, thorough study might reveal.

Statement of the Problem

The consultation did reveal a consensus among respondents about the nature of the school drop-out problem. A problem statement was developed for consideration at the invitational workshop being held as part of the consultative process. That statement was based on questionnaire responses and is as follows:

Problem Statement

Early school leaving, or school drop-outs, is a problem of increasing importance to Canada. Despite gains in school retention rates achieved in the last generation, changes in the labour market demand that young people complete secondary school as a minimum preparation for the technological world of tomorrow. Impending labour shortages in key sectors of our economy underline the urgency of the problem as to the social consequences of a dangerous emerging trend creating an unemployed "underclass" in our society.

The phenomenon of early school leaving should be seen as a gradual process of "withdrawal" from school, culminating most often with a decision to leave at the senior grade levels. Drop-outs leave for a complex and often interrelated set of academic, social, economic and personal reasons. Consequently, we should recognize that there is a variety of types of early school leavers, each type requiring a different set of responses from parents, schools, agencies and the community.

At the same time that differentiated response and individual attention are being given to students who are "at risk", we should recognize that ownership of the problem rests not only with those individual students. It is also "owned" by parents, schools, business and labour, health, social service and employment agencies, government and the broader community. The problem is systemic and should be treated as such.

While research suggests that economic disadvantage is a key factor relating to school drop-out, we should not be daunted by those complex social and economic factors. A committed and creative school staff and well organized school and community programs can significantly improve school retention rates. Public and community attitudes are also critical in resolving the problem.

V. UNDERSTANDING THE PROBLEM

Correlates of Early Leaving

In this chapter, student, family/background and school characteristics related to early school leaving are reviewed as a basis for establishing guidelines for the selection, development and evaluation of action plans designed to ameliorate the conditions that lead to early school leaving.

The most comprehensive conceptualization or dropping out as a symptom of fundamental mismatch between student and school came out of the longitudinal Youth in Transition project (1965-1978) sponsored by the United States Office of Education (Bachman, Green, & Wirtanen, 1971). This study of 2,213 tenth-grade boys in 87 public high schools examined individual causes and effects of school withdrawal as one extreme of a continuum of educational attainment involving an eight-year comparison of dropouts, high school graduates, and college students.

Another benchmark study is Watson's (1975) Ontario study which involved a 42.0% sample of the 1974-75 early school leavers in that province. The first effort of its kind in Canada, it served several important purposes, from identifying significant differences between the typical Canadian school leaver and the classical dropout of American literature, to demonstrating the variability of withdrawal rates across institutions and school jurisdictions. Moreover, it laid the foundation for the Ontario Student Retention and Transition publications that began to appear in the late 1980s, as part of a concerted effort on the part of the Ontario Ministry of Education to address the early school leaving problem in that province.

Pertinent materials are also drawn from recent documents released by the departments of Education in Newfoundland, Manitoba, Saskatchewan and Alberta. National concern about the holding power of Canadian schools seems to be culminating in a body of information that permits a more incisive analysis of trends and patterns in relation to the social and economic contexts of early school leaving.

Characteristics of Leavers

Family and Background Factors

"Our society differentiates primarily on the basis of sex, race, and social class" (Wagenaar, 1987, p. 167). Because these three variables have a major effect on both socialization experiences and how individuals and groups are treated in societal institutions it is important to study them in relation to early school withdrawal.

Moreover, as observed by Natriello et al., (1987) because their effects change over time researchers cannot rely on the results of studies conducted in another historical period. Even more to the point, regional and local variations tend to be the rule rather than the exception, making locale-specific data a prerequisite for action.

School boards tend not to consider the three basic factors in their analyses, thereby obscuring and failing to uncover valuable information about subgroups of leavers that merit special attention. At another level, the design of studies should take these variables into account, so that interactions with other factors can be determined.

Finally, overall school reforms and specific preventative and corrective strategies may have differential effects on various segments of the school population,with either positive or negative consequences for specific subgroups of potential leavers.

This section will be organized under the following subheadings: socioeconomic level, educational level of parents, family size and status, family relationships, ordinal position and educational level of siblings, place of birth and ethnicity, and place of residence. These family background characteristics are identified in the literature as those most commonly associated with school withdrawal. Identified interactions between racial and socio-economic variables will be addressed in a separate section.

Socioeconomic status. Bachman et al. (1971) concluded that the single most important family background predictor of leaving school early is low socioeconomic class status. In fact, the relationship between parental lower socioeconomic status and school withdrawal was so firmly established in the early dropout literature, that when Friesen (1967) found corroborating evidence in his Alberta sample he was moved to make the following statement: "This is an expected finding that has been revealed by so many studies that its inclusion is well nigh trivial and can be justified only for the sake of completeness" (p. 301).

The virtual universality of this finding does not, however, mean that dropping out is strictly a lower class phenomenon. In fact, the percentage of dropouts from the skilled, semi-skilled, and unskilled occupational categories varies from one-half to two-thirds of the number involved in the studies cited. Nor does it necessarily mean that causal relations are well understood.

In the past two decades financial need has receded in importance as a factor in school withdrawal (Bachman et al., 1971; Cervantes, 1965; Cipywnyk, et al., 1983). The only exceptions to this finding in the Canadian literature have been reported in studies conducted in school jurisdictions characterized by a high proportion of recent immigrants. It would, therefore, be incorrect to conclude that economic problems related to lower family income per se are making it necessary for Canadian adolescents to leave school early (Watson, 1975).

Rather what seems to be involved is a complex set of interacting factors that create personal and academic limitations that make it difficult for children from lower class homes to succeed in the kinds of schools and programs that are provided for them. Thus, even if they present themselves as valuing education in the abstract, early school leavers consistently indicate a dislike of the actual process of schooling (Bowman & Matthews, 1960; Friesen, 1967; Hammontree, 1978). Moreover, their approach to formal learning makes clear that, whatever their actual educational values and aspirations, they have not internalized the processes involved in realizing academic goals (Friesen, 1967).

One of these personal limitations may be an attitude of hostility or indifference to education itself, or to the institutions and programs in which formal schooling occurs (Schreiber, 1966). Indirect evidence for this attitudinal factor is consistent and convincing. The "persisters" interviewed by Bowman and Matthews (1965) reported active parental interest in their schooling. The leavers, on the other hand, presented a picture of parental indifference. Canadian studies confirm this finding of significantly more indifferent and negative attitudes towards school and academic achievement among the parents of dropouts (Barnes, 1973; Cipywnyk et al., 1983; Larson, 1958).

Studies that have addressed this issue directly by asking dropouts whether or not their parents supported them in their decision to leave school early have not yielded conclusive results (Cipywnyk et al., 1983; Stobo, 1973). The stance assumed by parents with respect to their child's withdrawal from school seems to vary a great deal from one sample of dropouts to another.

Moreover, the likelihood of approval or neutrality varies with demographic variables, the age or sex of the student, his or her achievement level, and the grade level involved. Thus, in a recent Ontario Study (Watson, 1975) 60.0% of the dropouts reported that their parents approved their decision to leave school. Thus, 70.0% of the A level dropouts, 68.0% of the Bs and Cs, 63.0% of the Ds, and 62.0%) of the Fs reported that their parents approved the decision to leave school.

The problems with data of this kind are twofold. First, it is the dropouts' statements about their parents' attitudes that are being recorded and analyzed; consequently, their accuracy can be questioned. Second, as Watson (1975) observed, "parents may well have 'given up' rather than actually approved" (p. 278). The latter possibility is supported by interview data which suggest a gradual wearing down process leading to apparent parental agreement with the early leaver's decision (Cipywnyk et al., 1983)

Although the variability of parental reactions to early school leaving has not been accounted for, it seems to be related to differences in the cluster of variables that are subsumed by the term socioeconomic level. In other words, being a member of a lower or working class family may not mean the same thing in different parts of Canada, and may or may not include a negative attitude towards education.

More importantly, in most Canadian studies, from one-third to one-half of the dropouts surveyed or interviewed, depending on the year and locale of the study, tend to be from white collar, managerial, or professional families (Dumka, 1970; Stobo, 1973; Watson, 1975). Clearly, the nature of the socioeconomic variable and the extent to which it contributes to early school withdrawal must be determined for each jurisdiction. This kind of information is of critical importance to anyone interested in developing curricula and intervention programs designed to keep adolescents in school.

Most of the other family background factors discussed in this section are subsumed by, or closely related to, the more general socioeconomic level variable. They are considered separately, however, because of their prominence in the literature.

Parents' education. A number of studies have reported a direct correlation between parental level of education and school withdrawal. Bledsoe (1959) found an almost perfect inverse relationship between parents' level of education and school withdrawal, with no early leavers from families in which parents had some college education, and increasing over-representation of leavers as the number of years of formal schooling among the parents decreased.

In a general way, the above figures have been corroborated in Canadian studies. Sharp and Kristjanson (1965) found that 22.0% of the population in the fathers' age categories had completed high school, whereas the corresponding proportions for the fathers of dropouts was 10.0% for boys and 8.0% for girls. Similarly, Barnes (1973) determined that the fathers of the dropouts in his British Columbia sample had significantly less education than the fathers of the graduate controls.

The results of Watson's 1975 Ontario study, however, "upset the classical findings" (p. 268). On the basis of reported level of schooling, 9.0% of the leavers' parents had attended university or obtained a degree, 26.0% had upper secondary or post-secondary non-university schooling, 51.0% had completed Grades 7 - 10, and 14.0% had a Grade six or less education. The leavers' fathers in this study, therefore, compared very favourably in educational status with the Ontario male population of similar age. Thus, only a small subgroup fit the description of the 'classical' dropout of American studies who is said to come from the lowest social stratum of society, whether status is defined by income or by education.

Family size and status. Although the status of the home,. i.e., whether it was intact or broken by death or separation, had been related to school withdrawal in a number of early studies, Stevens' (1965) review of the literature yielded conflicting evidence. Reported findings about the relationship between early school leaving and family size at that time were also inconclusive.

Stevens (1965) found that size of family was a significant predictor of school withdrawal in Colorado. More leavers (47.7%) than graduates (21.8%) came from large (6+) families. His data, however, did not yield any significant relationship between status of home and school completion. Bowman and Matthews (1960) confirmed the relationship between family size and early school leaving. The leavers in their Illinois study more frequently came from families of five or six or more children, a finding consistent with their socioeconomic status.

Bachman et al. (1971) reported that the withdrawal rate in their national study was twice as high for boys from large families or broken homes. Moreover, more than half of the boys with six or more siblings, coompared to less that one-quarter of those with two or fewer, failed to obtain any post-high school education. With socioeconomic status controlled, the strength of the relationship was diminished, but it did not disappear. In sum, family size, in and of itself, was found to have a direct relationship to education level.

Watson's (1975) province-wide survey confirmed the results of smaller Ontario studies in individual school jurisdictions. The average number of children in the leavers' families was found to be 4.3, compared to 3.6 for the general population. A subsequent study in the borough of York (Archer, 1978) yielded an even greater discrepancy. Whereas the average family size in the borough was 3.2, for leavers it was 5 plus. Over half of the leavers came from families with four or more children, with one-quarter reporting five or more children per family. Similarly, "Early School Leavers," a special group of fourteen and fifteen-year students in Ontario who are permitted to leave school and get a job, have also been found to come from larger than average families." Finally, in a prediction equation developed by Kumar, Padro and Watson (1977) family size proved more important than school-related factors and average expenditure per pupil in explaining variability in early school leaving rates.

An exploratory study in the South Okanagan region of British Columbia (Barnes, 1973) revealed that 63.0% of the leavers, as compared with 12.0% of the controls came from unstable homes.

Over one-third of the "Toronto Early School Leavers" interviewed by Larter and Eason (1978) and a similar proportion of the leavers in the Watson (1975) Ontario Study were not living with both parents. In 26 British Columbia school districts, in 1978-79, six out of ten early school leavers were found to be living in intact homes. Another 22.0% were living with one parent, 6.0% with a guardian, and 3.0% were "in care" (British Columbia Department of Education, 1980). Since there was no comparison control group, the significance of these findings cannot be determined.

Zamanzadeh & Prince (1978) found that 27.0% of the early leavers were from families in which the parents were separated or divorced, and 15.0% from families where either or both of the parents were deceased. Compared to 90.0% of the controls, only 54.0% of the leavers were living with both parents.

As with family size, at least some of the association between status of home and school withdrawal has been found to be mediated by socio-economic level, in that homes broken by divorce or separation, at least until recently, were more likely to be in the lower social strata. In any event, like the general socio-economic variable discussed above, the relationship between family instability and early school withdrawal must be examined in relation to other regional demographic and family unit variables.

Family relationships. Regardless of whether or not the home was intact, Bachman et al (1971) found that the quality of relationships among family members was an important variable related to school withdrawal, with parental punitiveness proving a useful predictive factor.

Knudsen (1964) reported a positive predictive association between school progress toward graduation and affectional dependence on parents. Leavers appeared to be more exclusively peer oriented than normal progress students who had high orientations to both parents and friends. Moreover, family decision-making structures were considered to be democratic and egalitarian most frequently by both male and female normal progress students, compared to other categories. Similarly, Dumka (1970) noted that leavers felt less well understood and accepted at home than their peers.

The most telling evidence, however, comes from a study (Cervantes, 1965) designed to explore the "sociocultural and psychodynamic factors involved in withdrawal from the academic milieu" (p. 6) in a blue-collar metropolitan area. It was found that the leaver was reared in a family which had less solidarity, less primary relatedness, and less paternal influence than did the family of the graduate. Moreover, the leaver's family had fewer close friends and fewer "problem free" friends that the families of his academically successful peers. Each of the comparisons of the primary relations within homes of adolescents of similar socio-economic background distinguished the leaver from the graduate. The author concluded that "no matter what other variables are at work, the nuclear family is of critical importance in the consideration of the dropout problem" (p. 37).

In terms of implications for further research, it is within-group comparisons of this kind that are most likely to yield at least tentative answers to the question of why some students withdraw from school early, while their demographically similar peers persist to graduation.

Ordinal position and educational level of siblings. Bowman and Matthews (1960) reported that early school leavers were less frequently the only or first-born. Stevens (1965) found that among graduates, only one quarter had older siblings who were leavers. In comparison, over two-thirds of the older siblings of leavers (more girls than boys) had left school early. The most common family position for the leaver in the Watson (1975) study was 'that of the middle child' (45.0%). Only 20.0% were the eldest in their family. Almost half of the leavers who were interviewed had a brother or sister who had left school early. The Toronto "Early School Leavers" (Larter & Eason, 1978) tended to have older siblings who, though they had not left school before the age of 16, had not graduated from high school. The Saskatchewan data (Cipywnyk et al., 1983) confirmed this general pattern.

Place of birth and ethnicity. Sharp and Kristjanson (1965) found that "Icelandic, Russian-Ukrainian, and French" males were over-represented among the leavers. Conversely, the British group was over-represented in the student category. More recent studies in western Canada (Cipywnyk et al, 1983) did not uncover any relationship between immigrant status of the leavers (or their parents) and early withdrawal from school.

In an Ontario study conducted in Renfrew County (Harkins, 1977), it was reported that students of French origin left school early in larger numbers (9.6%) than their peers of Anglo-Saxon (7.3%), German (6.9%), and Polish (6.6%) origin. Barnes (1973), on the other hand, found that early school leaving was more frequent among students who were not "of English or Canadian origin" (p. 26).

Similarly, one-third of the Toronto "Early School Leavers" (ESLs) who had left school prior to the legal age of 16 had been born in Portugal (Larter and Eason, 1978). As this group constituted only 5.9% of the general school population, it was over-represented in the Early School Leavers group. By way of contrast, Canadian-born students were under-represented among the ESLs (58.0%, as opposed to 70.1% in the general school population). This finding may, however, be an anomalous one confined to the special situation of ESLs. Thus, in the Reich and Young (1975) study, also carried out in Toronto, only 42.0% of the leavers were New Canadian, yet this group constituted 48.0% of the total secondary school population. On a province-wide basis, Watson (1975) found an even weaker relationship between "New Canadianism" and early school withdrawal. In fact, the parents of the leavers were slightly more likely to be Canadian-born. Finally, the most common language spoken in the home was English, and only a few early school leavers were from unilingual non-English speaking families.

The inconclusive nature of the findings regarding the factors of place of birth and ethnicity suggests the need to examine them in the context of local conditions.

Urban/rural residence. The literature on the relationship between urban versus rural residence and school withdrawal is surprisingly sparse. Sharp and Kristjanson (1965) found that there were fewer leavers in urban than in rural Manitoba. Farm residence while in school was reported by 64.0% of the male leavers and 33.0% of the male students. On the other hand, residence in a town with a population of 2,500 or more was reported by 35.0% of the male students and 14.0% of the leavers. Smaller differences were found for the female sample, with 43.0% of students and 51.0% of leavers reporting farm residence, and 30.0% of the students and 19.0% of the leavers indicating residence in larger centers.

On the other hand, Harkins (1977) found that students residing in urban areas in Renfrew County, Ontario tended to withdraw from secondary school at a greater rate than students residing in rural areas, with the differences increasing steadily from 6.1% (rural) to 8.7% (urban) in 1971-72, to 5.8% (rural) and 12.0% (urban) in 1973-74. The average range in the time period 1971-1976 was 9.7% (urban) and 5.8% (rural).

In 1983 the Saskatchewan urban and rural rates were virtually identical: 31.0% and 30.0%, respectively. In 1986-87 the difference between the two rates was statistically significant: 49.0% for urban and 32.0% for rural schools. The dramatic increase observed is probably primarily a function of an intensifying rural to urban and reserve to city migration in the province.

Socio-Economic Status and Race. It is well-established that early leaving rates vary widely among social groups. "Dropout rates are higher for members of racial, ethnic, and language minorities, for men, and for persons from lower socioeconomic status" (Rumberger, 1987, p. 108). Thus, although the national American cohort dropout rate for 1980 sophomores was 13.6%, the rates varied from 12.2% for whites to 18.7% for Hispanics, and from 8.9% for students from the highest socio-economic levels to 22.3% for those from the lowest levels.

Trends in dropout rates show similar variations. Between 1968 and 1984 the rate for black males dropped from 23.8% to 19.7%. The decline was even more marked for black females: 24.7% to 14.5%. In comparison, the rate for white females remained almost constant: 14.6% to 14.0%, and was unstable for white males: 14.3% (1968), 17.9% (1981), and 15.8% in 1984. Hispanic dropout rates showed little change over the decade from 1972 to 1984, except for 18- to 19-year old males for whom a decline from 35.5% in 1972 to 26.2% in 1984.

The above data indicate that some American minorities, particularly blacks, are staying in school and completing high school requirements at a steadily increasing rate. Hispanic students continue to drop out in large numbers, but the younger the cohort examined, the lower the rates observed.

The overall rates for the student cohort studied in the High School and Beyond Study (Ekstrom et al., 1987) show that a larger percentage of Blacks and Hispanics (17.0% and 18.0% respectively) left earlier than Whites (12.0%). The rate for Asians was only 3.0% while for "American Indians and Alaska natives it was 29.0 %. Other studies have yielded leaving rates for Hispanics of 35.0%, as compared to 28.0% (or 24.0%) for Blacks and 18.0% (or 14.0%) for whites. (Rumberger, 1987) Different ways of computing the rates and different samples make interpretation of these varying rates highly problematic.

According to Wagenaar (1987), the reasons given for early withdrawal vary by race and sex. Among females, whites (36.0%) are more likely to indicate school-related reasons than blacks (29.0%) and Hispanics (21.0%).

Hispanic and white females are equally likely to cite marriage and pregnancy, but much less so than black females. Black and white males are similar with respect to the proportion citing school-related reasons: 55.0%. Fewer Hispanic males proffer school-related reasons (36.0%), and are more likely to cite economic reasons (38.0%, as opposed to 23.0% for the other two groups).

Wagenaar (1987) concludes that, given the above differences, "results should generally be reported by race and sex subgroups" (p. 169). (Whether such a recommendation could be honoured in Canada is not clear, although separate studies of Native school leaving rates have been conducted).

Compounding the complexity created by the above interactions between sex and race is the third basic social category: socio-economic class status. Virtually all the recent studies that have addressed the issue of the relationship between poverty and school success have shown socio-economic class differences in early leaving rates. In their analysis of the High School and Beyond Study data, Ekstrom et al (1987) found that the dropout rates for their low, middle, and high categories were 26.0%, 13.0%, and 8.0%, respectively.

The multifaceted nature of "social class" has made it possible for researchers to isolate a variety of variables; economic, cultural, education, contextual and familial that might reasonably be expected to influence school achievement and lead to early withdrawal. Unravelling the various components is far from complete, but guidelines related to preventative and corrective measures designed to support success in school have been proposed. These general principles are best addressed in the section of this paper in which ameliorative strategies are examined.

One last point worth noting is the interaction of race and social class. Rumberger (1983) used simulations to show that, given similar background characteristics, minorities are no more (and perhaps, less) likely to leave school early than whites. Similarly, Wehlage and Rutter (1987) and Ekstrom et al. (1987) found that social class had a greater effect than race on early leaving rates. In addition, specific family background factors have been identified as influencing the probability of dropping out in all race and sex groups (Wagenaar, 1987).

The above discussion of American data is included in this paper because of the dearth of similar Canadian analyses. Given the seriousness of the educational problems being experienced by Natives in this country, the positive trends observed among minorities in the U.S.A. in relation to improved socio-economic status should be seen as providing support to school jurisdictions and social agencies engaged in efforts to improve the contexts in which poor children live and learn.

Individual Factors

In this section, individual factors associated with the school experience of early leavers are discussed under the following headings: academic ability, achievement level, reading ability, program, grade retardation, attendance, transiency, extracurricular involvement, work experience, and adjustment/behaviour.

Academic Ability. The relative contribution of ability level to the efficacy of withdrawal prediction equations has shifted over the years. In general the literature up to 1965 suggested that graduates had higher I.Q.s than leavers, but the reported findings were not consistent. Stevens (1965) observed that, "It seems that many of the youths who drop out of school have the intellectual ability to stay in the high school educational program. Even a majority of those who are low in intelligence are not so low that they cannot complete the required work" (p.13).

In a report based on withdrawal statistics collected in the '50s and early '60s, Warner decried the fact that a substantial number of adolescents in the top 25.0% of the population, intellectually, were leaving school early. Similarly Hohol (1955) concluded that with respect to teachers' marks, "the drop out fares worse than three fourths of the graduates" (p. 9). In his view, this unfortunate paradox, average intelligence and poor marks, should alert schools to the curriculum needs and guidance requirements of potential leavers.

Bachman et al. (1971) found that boys who left school early tended to score below average on intelligence tests and tests of academic ability. However, the difference in ability between early school leavers and those who completed high school but did not go on to college was not significant. Much larger differences were observed between those boys who later went to college and those who did not.

Few Canadian studies have included actual data on the intelligence or academic ability of the leavers in their sample. Sharp and Kristjanson (1965) found that the intelligence scores of leavers in Manitoba in the late '50s and early '60s were distributed in the following manner: less than 90 : 41.0%; 90-110 : 48.7%; 110-120 : 6.4% 120-140 : 3.9%. They concluded that, "these data strongly suggest that a major reason for leaving school is an inability to maintain acceptable standards of academic achievement" (p.38). On the other hand, 59.0% had scores of 90+, and should have been able to complete the high school program. More recently, Radwanski (1987) concluded that over 40.0% of Canadian school leavers possess at least average intellectual ability.

Studies in which ability and achievement levels are compared and reviewed in the next section. Similarly, the extent to which leavers differ from other segments of the high school population with respect to ability is examined in conjunction with differences in achievement.

Achievement Level. Bowman and Matthews (1960) tracked the academic records of leavers, controls matched for intelligence and social status, and stayins in general over a period of eight years. The longer their sample stayed in school, the greater the discrepancy between the achievement of the leavers and the controls. The average grade in high school for the leavers was C-, with very few As and a declining average from Grade 8 to Grade 10. By Grade 10, 60.0% of the leavers had withdrawn from school. Those remaining, apparently the better students, then did somewhat better.

The authors concluded that in the case of the leavers, there were "other factors of major importance influencing their school performance" (p.39).

In his comparison of leavers and graduates, Stevens (1965) found that on a four-point scale, graduates received a 2.45 grade-point average, compared to 1.38 for the leavers. He noted however, that students with a grade-point average of 1.0 were potential graduates. Moreover, although the mental ability scores of the majority of the leavers fell below the 50th percentile, 20.0% of their scores fell above the 70th, 12.0%. above the 80th, and 10.0% above the 90th percentiles. In achievement, on the other hand, three-quarters of them scored below the 30th percentile on standardized achievement tests, and only one-eighth fell in the top two deciles. Finally, it should be noted that the mental ability scores of approximately one third of the graduates fell below the 50th percentile.

Although, in most cases, comparisons with matched control groups or even stayins in general are lacking, recent Canadian studies confirm the poor achievement pattern identified in early investigations in the U.S.A. and Canada. If discrepancies between ability and achievement are reported, they will be noted in this section.

In a Vancouver study, Durward and Ellis (1972) found that 52.8% of the early school leavers had poor achievement ratings, i.e., D or F standing. However, the leavers with a C achievement level rating or above constituted 37.6% (1969); 42.9 % (1970), and 41.2% (1971) of the early school leavers in the years indicated. These percentages indicate that a substantial proportion of the students who left early had the ability to complete their high school courses.

The discrepancy between ability and achievement noted by Hohol (1955) was confirmed when scholastic ability and achievement were juxtaposed. Although nearly 75.0% of the early school leavers had C or higher ability levels, only 50.7% were achieving at that level. Conversely, while only 8.8% were in the D and E ability categories, over 50.0% were earning D and E grades.

In the Cipywnyk et al. (1983) Saskatchewan study, information about the leavers' level of academic ability was not available. The findings regarding their achievement patterns were consistent with what other researchers had found. Eighty four percent had been essentially borderline students in high school, with a D or F average level of performance.

What the literature in this area suggests is that Canadians are as reluctant as Americans to confront the issue of individual and group differences in the ability to succeed at school and the manner in which such differences contribute to academic failure and leaving. Boards are reluctant to provide information about students' academic ability scores, researchers caught in the web of egalitarianism frequently fail to distinguish between measures of ability and achievement, and parents and students object to streaming or tracking of any kind. The implications of this failure to address variability in learning capacity for the design and evaluation of preventative and corrective strategies are clear. What is not clear is how this issue can be brought back into the discussions on school retention and leaving rates.

Reading Ability. A strong case has been made for the central position of inadequate reading skills in leavers' negative perception of their school experience and their academic problems. Thus, Grant

(1976) contended that he did not know of any factor "more responsible for students developing a dislike for school than that of reading disability" (p.83). Similarly, Mahood (1981) made the following statement about the role of reading ability in the school withdrawal phenomenon;

> Virtually all researchers agree that one of the single, most significant sources of dropping out is poor reading ability. Poor reading ability leads to school failure, and repeated failures led to feelings of being a "born loser," which in turn results in either compensatory aggressiveness or withdrawal. Neither behaviour is particularly conducive to survival in schools (or possibly anywhere in our society) (p.56).

Schreiber (1966) observed that when the leavers in studies that he had reviewed withdrew from school, "10.0% were reading below the level appropriate for third grade of elementary school - they might as well have been illiterate - and 45.0% were reading at or below the Grade 6 level" (p.3). Similarly, in a state-wide 1961 Maryland study it was found that 46.0% of the leavers were achieving below sixth-grade level in reading (Ristow, 1965, p. 463). Bachman, Wirtanen, and Green (1971) found that 75.4% of the early leaving boys in their national sample scored below the median of their grade level on a standardized reading test, and 53.4% were in the lowest quarter. Unfortunatly, as Grant points out, by the time such pupils reach the junior high school, "it may be too late to salvage them" (p. 83).

As indicated in the discussion of ability levels, a number of researchers have argued that there are no significant differences in ability between early leavers and high school graduates who do not go on to college. Where the two groups differ markedly is in their command of the basic skills. The findings of the National Longitudinal Survey (NLS) indicated that among 16 - 17 year olds in 1979, 50.3% of all dropouts had basic skills scores in the bottom 20.0% of the test scores distribution. Moreover, "16 to 17 year-olds in the bottom 20.0% of the test score distribution were four times more likely than those in the upper 20.0% to have dropped out at the time of the 1979 NLS interview" (Hahn et al, 1987, p.18).

"By reading level, the rate of dropouts is linear" (Hammack, 1986). Of the 47.0% of the students who entered ninth grade in Chicago schools in 1982, with a "normal" reading level, 23.0% had dropped out by 1984. For those whose reading scores fell between the 4.7 to 6.7 grade level, the leaving rate was 50.0%. For those whose reading scores were lower than the 4.7 grade level the rate was 67.8%. The latter groups comprised 33.6% and 13.1% of the entering freshman class in 1978.

Ahrendt (1970) deplored the fact that Canadian research on early school leaving included little reference to reading ability. Citing primarily American studies, he concluded that "reading achievement of dropouts is significantly lower than that of students who remain to graduate," (p.14) and that the fact that "reading is essential for 90% of all subjects taught in school" (p.14) places reading disability at the core of the leavers' learning problems. A 1964 study by the National Education Association made this point clearly:

> Every poor reader - and he begins to show himself early - is a potential dropout. He starts to fail early in the elementary school, and the habit of failure and frustration deepens as he "progresses" or advances through school. In a total program to meet the dropout problem a systematic reading improvement program has a central place (Ahrendt, 1973 p.14).

Program. The learning difficulties experienced by students in elementary school are exacerbated when they reach high school. Carter (1973) decried the conceptual confusion surrounding the concepts of democracy, egalitarianism and equality of opportunity, and the consequences of abandoning streaming in the schools at the same time that virtually all primary school students are being passed onto high school:

> As a result we have in the same class pupils who range from a very low learning ability to a high one. This can cause irreparable harm to the very bright student and certainly does not help the much slower learner who becomes frustrated and loses interest in learning altogether (p.262).

Similarly, nearly two decades earlier, Hohol (1955) had concluded that "a very substantial reason for leaving school is that students become disinterested in or discouraged about their school programs. Young people will not remain in school if, rightly or wrongly, they believe that its program has little practical value for them" (p.8).

Unfortunately, even when more appropriate programs are available, "the prestige of matriculation subjects leads many students into paths that can only end in frustration and resentment" (Larson, 1958, p.215). On the basis of a Greater Victoria study, Dumka (1970), concluded that the lack of prestige of "non-academic" programs deterred early school leavers, most of whom had I.Q.s of 110 or lower from taking advantage of alternate routes to Grade 12 graduation. In his perception, students in non-academic programs were "relegated to second-class status" (p.23). Consequently, he argued that "no distinction should be made between academic and non-academic pupils, or among the six senior secondary programs with their rigid constants" (p.28) and recommended that "the Department of Education should eliminate the organization of courses into programs" (p.28).

In Ontario, General level students are over-represented in the ranks of school leavers. Although they account for two-thirds of the students entering Grade 9, they constitute three-quarters of the school leavers. In comparison, while 22.0% of the Grade 9 students enrol in Advanced level courses, only 12.0% of them leave school early. They tend to leave on or near their 16th birthday, thereby obtaining an official release from a situation that precludes attaining a high school diploma. For students in the General or Advanced levels, "dropping out is more closely related to achievement in secondary school. (Lawton et al., 1988). In sum, the level at which Ontario students take the majority of their courses is the best predictor, at the secondary level, of school leaving.

Grade Retardation. In the late 1950s, grade retardation was established as one of the most reliable indicators of school leaving (Stevens, 1965). The predictive power of this event in a student's life is rooted not only in the fact that it is a "traumatic indication of failure" at academic tasks; its ultimate impact is both personal and social.

Bowman and Matthews (1960) found that 23.9% of the leavers, as compared to 10.0% of persisters were retarded one year in school. Another 5.1% of the leavers were behind two years. Sixty percent of the retardation in all groups occurred in the first and second grade. More leavers however, were held back in the upper grades.

According to 1961 statistics of the U.S. Department of Labor (cited in Stevens 1965), 84.0% of early school leavers were one year retarded in school, and 53.0%. were two or more years retarded. Students who were two years retarded by Grade 7 were unlikely to complete Grade 10; students who were three years retarded were unlikely to complete Grade 8. Only half of the withdrawals were members of their original Grade 1 cohort. Ten times as many male leavers, compared to male graduates were retarded two grades, and four times as many were retarded one grade. Two-thirds, of the female leavers, however, were at grade level.

Before they had reached third grade, 9.0% of the boys in the Bachman et al. (1971) national sample had repeated a grade. By the sixth grade, nearly one-fifth had been held back a year, with the proportion increasing to 24.0% by Grade 10. More than half of the early school leavers had failed a grade by the time they reached Grade 10. In comparison, only 27.0% of the boys who eventually completed high school, and 8.0% of those who went on to college had suffered a similar fate. The early withdrawal rate for those who had never been held back was estimated as 10.0%. Conversely, a boy who had failed a grade was four times as likely to leave school early as one who had not.

In a London study (Small, Wilson & Stennett 1973), it was found that school leavers had repeated two or more grades in elementary school with Grades 1, 2, and 5 being the most commonly failed. A matched group of graduates had repeated only one grade. Zamanzadeh, and Prince (1978) reported that 59.0% of their Montreal sample of premature leavers, compared to 17.0% of the controls, had failed two or more subjects in high school. Similarly, 45.0% of the leavers and 10.0% of the controls had failed one or more grades in elementary school. Overall, 80.0% of the leavers had been held back a year or more during their school careers. Only 12.0% of the controls had had their progress through school slowed down in this way. Of the leavers in the 1963 Saskatchewan sampler 54.0% had failed at least once. The most commonly repeated grades were 7, 9, and 10. (Cipywnyk et al., 1983)

As Bachman et al. (1971) observed, whether grade repetition is "an important cause in its own rights or merely a very revealing symptom remains to be demonstrated" (p.54). More than likely, it is probably both a cause of and a symptom of serious academic difficulties, and should be viewed as a failure on the part of the school to adopt the kind of pedagogical strategies required to ensure actual continuous progress on the part of all pupils.

The value of grade retention policies has always been a contentious issue. Recently, however, there has been a growing consensus that failing students does more harm than good. Thus, Hammack (1986), having analyzed the results of dropout data in several major American cities, concluded that "holding students back a year or more in elementary school increases the probability of dropping out." (p.32). What does not make sense, is that failing students who have demonstrated clearly that they are experiencing academic difficulties, are not, as a matter of routine, "identified as at risk and targeted for special attention" (Hammack, 1986, p.33).

Attendance. American investigators have consistently reported a higher rate of absenteeism among dropouts than among persisters. The importance attached to poor attendance stems from its dual role as a symptom of underlying difficulties and as an immediate cause, or precipitating factor of the final act of leaving school .

The attendance records of the leavers in Bowman and Matthews' (1960) study became progressively worse from the primary grades through high school, and were far worse than those of their matched controls. In the last two years of school, the leavers were absent an average of 21.89 days per year, compared to 8.53 days for the controls.

In Stevens' (1965) study 31.0% of the leavers had an absenteeism rate of 15.0% or higher, and 50.0% had a rate of more than 10.0%. Of the graduates, 97.8% had been absent less than 10.0% of the time. Similar results have been reported almost universally.

A significantly higher rate of absenteeism, particularly in the year prior to leaving school, has been confirmed by Canadian researchers. Barnes (1973) found that "absenteeism was extremely high in the records of dropouts as compared to matched controls, with a higher rate for girls (30.0%) than for boys" (p.27). A number of Ontario studies (Archer, 1978; Larten & Eason, 1978; Stobo, 1973) provided support for the general relationship indicated. In the provincial Saskatchewan study (Cipywnyk et al., 1983) it was found that a pattern of increased absenteeism in the year preceding the year of leaving and even higher rates prior to actual withdrawal hold true for the majority of the leavers.

In sum, the attendance of those who are contemplating school withdrawal usually deteriorates the year before withdrawal, and drops precipitously just prior to the actual act of leaving school. Clearly, absenteeism is a visible sign of school-related problems and can be used as an opening for discussion with potential dropouts by school personnel.

Transiency. Transiency like absenteeism, is perceived as creating additional problems for students already experiencing difficulties with school work or in their social relationships with peers. The studies reviewed, however, yield inconsistent findings.

Bledsoe (1959) identified transiency as a correlate of withdrawal from school prior to completing Grade 10. Of those students who were enrolled continuously in the same elementary school, 9.2% withdrew from high school, whereas 35.3% of students who were enrolled in two or more schools left prematurely.

Small, Wilson, and Stennett (1973) found that London graduates had attended three to four elementary schools, while early school leavers had attended from three to eleven. Similarly, leavers in Saskatchewan had a high rate of school mobility; 44.0% had attended four or more schools. (Cipywnyk et al., 1983). In Karp's (1988) study, 16.0% of the leavers identified moving, which lead to academic difficulties, as a "somewhat important" factor in dropping out of school.

Intuitively, moving from school to school would seem to be a disruptive factor in students' education. Empirical evidence regarding this variable should be collected on a jurisdictional basis.

Extra-curricular Activities. Participation in extracurricular activities has been suggested as "perhaps the best single criterion of adjustment in the non-academic area" (Bowman and Matthews, 1960, P. 41). Students who feel alienated from school or who have problems in the area of

Of the graduates in Stevens' (1965) study, 60.0% of the graduates were involved in three or more activities, 9.0% were involved in nine or more, and only 4.5% were not involved in any. In striking contrast, 42.9% of the leavers had not participated in any school activities, with boys (34.8%) even less involved that girls (56.2%).

Bowman and Matthews (1960) observed that leavers participated in fewer extra-curricular activities, and with a lower degree of involvement. Similarly, more that half of the leavers in a state-wide 1961 Maryland study had never participated in any extra-curricular activities (Ristow, 1965, p.463).

As in the case of attendance, participation in school activities tends to decrease rapidly in the months immediately preceding the act of school withdrawal (British Columbia Department of Education, 1980). The implications for school personnel concerned with early school withdrawal are both long-term, in that low levels of participation can be remedied, and short-term with respect to identification of potential school leavers.

Work Experience. The evidence does not lend clear support to the common sense observation that student employment is an important factor in early school leaving. Sharp and Kristjanson (1965) concluded that there was "relatively little association between staying in and dropping out of school and work experience" (p.36). Similarly, Stevens (1965) found a negligible relationship between prior work experience and dropping out. Of the thirteen factors tested for their predictive value, work experience was one of the two that he did not include in his prediction model.

Martens (1977) survey of 1,032 southern Saskatchewan high school students indicated that 48.8% held jobs. Only 15.6% of the students were motivated by a desire to help the family economically. With respect to academic performance, 19.4% of the employed students had A averages, 39.0% were performing at a B level, and only 1.7% were failing.

In a Saskatoon Catholic Board of Education study (1978), part-time work was identified by teachers as the main reason that students of average or above ability were not doing well academically. Students who were working excessive hours - beyond 25 to 30 hours per week - tended to attach a higher value on work than to education. The "job and related activities form the student's real life. The school and its activities become a sideline to the student" (p.14).

As Friesen (1967) noted, however, it may be that the argument that poor school adjustment stems from an orientation to outside interests should be turned around. Experiencing failure in school, potential leavers seek activities which will give them pleasure and status. Thus, they become significantly more involved in "going steady," dating frequently, owning cars, watching television excessively and going to movies, "Where the 'leaver' student has not found satisfaction in school, he now finds it in a variety of ways outside the school" (p.14).

Recent Ontario data (King et al., 1988) provides clear and disturbing evidence of the role of part-time work in the lives of students who are not succeeding in school. Although part-time work has become the norm for secondary school students, with two-thirds of Grade 11 students in the work force (and another 22.0% seeking employment), the meaning of work differs for general and advanced level students. For the former, work is a source of recreational income; for the latter, it is a source of ego satisfaction.

The underlying motive for working part-time tends to be instant gratification, and saving for the future is not a priority. Only 15.0% contribute to family income, (9.0%) save for the future, (2.0%), or support themselves (2.0%). It should be noted, however, that although students' earnings are earmarked for personal spending on clothes, recreation, and food, indirectly they do augment or supplement the family budget, thereby enabling them to keep up in the status game for which certain possessions and activities are prerequisite.

Most students work in low paying, non-unionized service and retail jobs with few opportunities for advancement, permanent employment, security and benefits, In fact, most of the workers in chainstores and franchises are under the age of 18. They earn minimum wages and constitute a cheap source of labour for unpopular evening and weekend shifts. As school failures accumulate, and students look to their jobs for success experiences, they tend to work progressively longer hours, thereby further reducing the probability of completing graduation requirements.

Ironically, if school leavers hope to escape from school to a full time job with their current employer, at least half of them in Ontario are in for a rude surprise. Many firms that recruit students for part-time work have a policy of not hiring school leavers.

The number of hours worked a week ranges from 6 to 32. For Advanced-level Ontario students, an excess of 15 hours a week tends to lead to a decline in school achievement. The relationship does not hold for General-level students, for whom expectations are so low that homework is not assigned, and tests and examinations are not onerous.

In this respect, it is worth noting that approximately two-thirds of both boys and girls work 16 or more hours a week, with 45.0% of the boys putting in a minimum of 21 hours. General level boys are most likely to be in an excessive workload situation. They are also most likely to have low marks and leave school early, with the relationship between working long hours and early leaving what one would expect it to be.

The pattern of relationships described above has often been interpreted as indicative of the negative effect of employment on school performance. A careful analysis of the evidence supports a more interactive explanation, with school failure making work experiences particularly attractive in the first instance to low achieving students, and work commitments, in turn, further reducing the probability of making up credit deficits and obtaining a diploma.

As inadequate progress reinforces the student's disaffection with school, motivation and effort decline and school achievement ceases to be a realistic goal. The eventual emergence, usually in adolescence, of a counter-culture that attracts poor achievers, supports their ways of coping with frustration, and facilitates their need to escape from failure is a common phenomenon, particularly in large urban or comprehensive schools. Work simply provides an avenue for compensatory positive experiences while in school, and a place "to escape to" when normal needs for competency and success can no longer be thwarted.

Adjustment and School Behaviour. Patterns of behaviour characteristic of potential early school leavers have been identified in a number of studies (Barnes, 1973; Bowman & Matthews, 1960; Zamanzadeh & Prince, 1976). In general, these patterns tend to include the kinds of responses to inimical educational environments that are displayed by stressed students who are not succeeding at school-related tasks. Thus, significant heralding symptoms for boys include frequent minor complaints, acting out behaviour, negativism, and poor social relationships (Barnes, 1973).

Bowman and Matthews (1960) found that their leavers and persisters scored significantly below the mean for the total class on personality adjustment. Initially, this difference was attributed to socioeconomic status, intelligence, and "the social status bias of the California Personality Inventory" (p.90). When socioeconomic status and intelligence were controlled, however, the leavers still scored significantly lower on poise, ascendancy, self-assurance, socialization, maturity, responsibility, achievements and intellectual efficiency. In general, these characteristics did not surface until junior high school, a time when leavers began to experience a great deal of dissatisfaction with their school experience.

Early school leavers did not have the personality characteristics necessary to achieve status. Moreover, they lacked-social maturity, were easily discouraged, and were pessimistic about their occupational future. In sum, Bowman and Matthews (1960) concluded that "the dropout is not stable in his personal mental health, is on the defensive in social situations, and is unable to command the work habits and responsibility to succeed in school and work situation" (p. 90). Boys, in particular, were characterized by dislike of school, conflict with teachers, and a desire for independence and adventure. Perceived as troublemakers, once they decided to leave it was difficult for school authorities to keep them at school.

Bachman et al., (1971) found the relationship between rebellious behaviour in Grade 10 and subsequent withdrawal from school to be essentially linear, and fairly strong. Of those least rebellious in Grade 10, only 7.0% left school early. The average early school leaver reported that he had been involved in seven or more delinquent acts in Grades 7 to 9, twice as many as high school graduates, and three times as many as college students, and was more likely to have been suspended or expelled (Bachman, et al., 1971). Finally, the higher the eventual educational attainment, the lower the proportion of smokers in Grade 10. A similar pattern with respect to alcohol use was observed.

Sixty-three percent of the early leavers in Zamanzadeh and Prince's (1978) Montreal study began to have difficulty with their teachers in elementary school; only 12.0% of the controls reported similar experiences. Moreover, 98.0% of the leavers were critical of the way they were handled, whereas only 15.0% of the controls expressed similar dissatisfaction. A number of the leavers had experienced a need for more control, in the sense of more attention, care, and understanding with firmness; others simply found their teachers lacking in individual care and affection. Overall, the adolescents in this sample exhibited more childhood anxiety symptoms such as nailbiting, bed wetting, and nightmares, and experienced more frequent periods of illness. In addition, they were less confident, and were more likely to derive a great deal of satisfaction from daydreaming.

Reasons For Leaving

Early school leaving has been the focus of research since the turn of the century. In the 1920s, when the high school completion rate was only 30.0%, four factors seemed to account for the low retention rate of the American public school system: 1) poor health, 2) lack of interest in school, 3) economic pressures, and 4) low academic achievement. Although these factors continue to emerge as significant determinants of early school leaving, the frequency with which each is cited has changed somewhat over the years. The most noticeable change is "the decline of reasons centered around economic and survival needs and the increase in individually centered rationales, especially those expressing a dislike for school" (Hewett & Johnson, 1979, p. 255).

"It is the consensus of personnel working with dropouts that most of the categories used for classifying such students are misleading" (French, 1969, p. 69). The categories into which the reasons cited by school administrators and teachers can be classified reflect immediate or precipitating antecedents of withdrawal related to school behaviour and academic performance. They tend not to identify underlying causes that might at least partially account for the surface symptoms of a mismatch between the abilities and motivations of early school leavers and their school environment, such as non-attendance, lack of interest, and disciplinary difficulties.

In sum, the significant of results based on reasons provided by school personnel is questionable. As indicators of underlying problems, and as a summary statements of the perceptions of teachers and administrators of the immediate antecedents of withdrawal, they are informative. As statements of the actual causes of early school leaving they are not, and caution must be exercised in their interpretation.

Because of the limited usefulness of official explanations of a school withdrawal, researchers turned to surveying or interviewing early school leavers to determine their perceptions of why they left. In practice, this approach proved equally problematic. Thus, "got a job offer" or "decided to go to work" does not necessarily tell the whole story. Employment, in many cases, is a reasonable alternative to staying in a school situation in which academic or adjustment problems have become unmanageable. On the other hand, getting a job may be mandated by impending parenthood or by a lifestyle requiring greater financial support than can be provided by part-time work.

"Personal" and "other" reasons can mask a variety of life situations, from imminent family responsibilities to emotional stability. Similarly, "medical/health" reasons may reflect a range of problems, from pregnancy to accidents, to addiction, or serious illness.

School-related reasons seem straightforward enough, but again, dislike of certain courses may be due to reading problems or learning disabilities which are rarely mentioned by adolescents who have withdrawn from school. Low academic ability, ethnicity, and value conflicts between the home and school are other sensitive areas avoided by interviewees and interviews alike. What the reasons cited by early withdrawals do is provide a basis for judging the validity of theoretical and empirical analyses of underlying causes and identifying links among the various statements of reasons available to the researcher.

Watson (1975) found that the most frequently cited reason for withdrawal among Ontario leavers was "job offer". Personal reasons (including pregnancy) were more important for girls than boys, but overall their contribution was not a significant one.

When, however, the reasons given are aggregated and classified into work or job-related, school-related, or personal categories, the importance of school-related reasons increases dramatically. In fact, although individually none of the school-related reasons was given as frequently as "to take a job", when they are totalled it becomes clear that virtually every student had a negative perception of some aspect of his/her school experience.

Approximately 30.0% of the students reported that they were "failing anyway", 31.0% percent said that they had "hated school", 21.0% admitted to "dissatisfaction with courses", and 18.0% expressed "dissatisfaction with teachers".

The verdicality of the withdrawals' perceptions that they were "failing anyway" is confirmed by the data on school achievement. If "D" grades, a marginal level of performance are included, approximately two-thirds of the withdrawals were "failing" when they left school.

In Saskatchewan, in the early 1980s, the most commonly stated category of reasons was school-related (57.0% of the responses). In striking contrast, only 21.6% of the leavers cited job-related reasons (Cipywnyk et al., 1983).

Decima Research (1987) reported that 27.0% to 29.0% of Ontario dropouts withdrew from school for job-related reasons. Another 19.0% to 23.0% decided to leave because of personal circumstances. The largest proportion, 43.0% to 45.0% left because of negative experiences in school. These results corroborate the findings of an earlier Ontario study (Warren and King, 1979) in which 44.0% of the reasons for leaving school early were school-related, 22.0% were personal in nature, and approximately 30.0% percent were pull factors related to work.

King, Warren, Michalski and Peart (1988) confirmed the above patterns of reasons for Ontario leavers. In their study, 33.0% of the drop-outs cited a work opportunity as influencing their decision to leave school. An examination of the leavers' school records showed, however, that the ostensible reason of going to work masked the fact that the overwhelming majority were so far behind in accumulating credits for graduation that the likelihood that they could complete high school had become an extremely remote possibility.

Moreover, most of the leavers did not need to go to work to supplement family income (85.0%), and only 2.0% needed to work to support themselves while in high school.

A major American analysis based on the High School and Beyond Study (Ekstrom, Goertz, Pollack & Rock, 1986) used the National Center for Education Statistics data base. The major reasons for dropping out were as follows:

1) 33.0% disliked school;

2) 33.0% had poor grades;

3) 15.0% could not get along with teacher(s) (21.0% males, 9.0% females);

4) 10.0% were expelled or suspended (13.0% males, 5.0% females);

5) 19.0% were offered a job (27.0% percent males, 11.0% females);

6) 11.0% helped to support their family;

7) 18.0% were getting married (7.0% males, 31.0% females); and

8) 23.0% had become pregnant (11.0% of total sample).

Note: The percentages add up to more than 100 percent, as leavers often cited more than one reason for leaving.

Clearly, the major reasons for leaving are school-related, with job-related considerations playing a relatively minor role in the two contexts.

The significance of school failure in early school leaving has been stressed by many researchers and educators. According to Hahn et al., (1987), the most common explanation for leaving school is poor school performance; 42.0% of the leavers in the High School and Beyond Study were D-level students.

San Diego student performance data supports the general finding that early leaving is far more characteristic of those who are not doing well in meeting academic expectations than those who are doing average or better. Seventy percent of those who left early had scholastic averages of 2.0 (on a four-point scale) or below; over half were below 1.5 and over one-fourth were below 1.0 (Hammack, 1987, p. 30). Another 7.0% had averages over 3.0.

The unequivocally clear criterion of missing credits identified by King et al., (1988) in Ontario lays to rest any doubt that may have remained in the literature regarding the real, as distinct from reported reasons, for leaving school. Given the stigma attached to early leaving, students make every effort to save face by projecting their limitations on teachers, administrators, and the system, thereby justifying their failure to resolve successfully a critically important task of adolescence.

Behind the real feelings that generate the ostensible reasons for leaving is one bald incontrovertible fact - academic failure. An analysis of data linking reasons for leaving with the number of missing credits on leavers' records supports this interpretation of what have been seen to be a multiplicity of different reasons for withdrawal from school. The one clear relationship observed was that a disproportionately large number of students who had not missed a credit left for personal reasons such as pregnancy, family pressure, or emotional instability. In all the other cases, the missing credit syndrome was disguised by statement linking leaving to boredom, poor teaching, unfriendly administration, irrelevant courses, and/or an offer of employment.

Karp (1988) differentiated among major, secondary, and minor motivational factors that, in varying combinations, lead to withdrawal from school. The three major factors are academic frustrations, the need to have relevancy demonstrated, and the pull of the work environment.

Nearly half of the leavers in her study asserted that they had experienced difficulty with academic subjects, the teachers were reluctant or unable to help, and that, in their view, "the school system is geared most to benefit students with top marks, and least to help the slow learner" (Karp, 1988, p. 19).

Dropouts also tend to see the curriculum as removed from real life, and express an intense desire for more personalized education. When the "disinvitation" of school becomes unbearable, it is the "invitation" of work that tips the balance in favour of leaving school. Thus, "in spite of high levels of job dissatisfaction among dropouts, there was unanimous agreement--that "working was better than going to school" (Karp, 1988, p. 21).

Secondary factors include family problems (5.0%), pregnancy (11.0% of the female leavers), personal trauma (4.0%) "rebellious nature" (7.0%), self-esteem, ethnic background, class size, learning styles of bright and bored students, double standards/labelling, transiency, and positive "pull" factors.

The minor factors that emerged tended to be specific school-related factors such as the credit and semester systems, program levels, language background, gender, and special education.

In sum, it is academic failure that is the root cause of early withdrawal from school. "The hunger to demonstrate competency" draws the poor student to the workplace, which is seen as "the only setting in which he can succeed, where he can establish his value, his status as a productive human being." (Hahn et al, 1987, p. 15) The one theme that permeates the literature is the early leaver's "deeply ingrained sense of personal failure, of individual worthlessness" (Hahn et al., 1987, p. 16).

School and Teacher Characteristics

Many leavers view the school as a rather hostile place that did not meet their needs. It seems that negative attitudes are especially strong in regard to perceived irrelevance of the curriculum, boredom, teacher stress on grades, teacher attitudes, and school restrictions (Thornburg, 1975).

The observations of Sewell, Palmo and Manni (1981) constitute an accurate summary of the literature through the late 1970s:

> An analysis of the research on the dropout will indicate that the institutional deficiencies of the school have been given considerably less attention than the intellectual and personality characteristics of students who fail to gain a high school diploma (p. 66).

Moreover, as Anderson (1982) discovered, although school climate has been studied extensively, the resulting body of research is unwieldy, and has not yielded a great deal of definitive information about the effects of schooling on students.

> The exact mechanisms by which individual and group level variables interact to create a climate conducive to positive student outcomes is very unclear. The full extent of climate differences and the differential effects of climates on different individuals within them (the frog pond effect) have not been considered in any depth except at the theoretical level (p. 413).

The reasons for withdrawal given by the leavers in the Bowman and Matthews (1965) study indicated that these students did not see education as either intrinsically valuable or as a means to practical ends; moreover they felt rejected by, and had rejected the school. In contrast, their matched controls valued education both as a "good in itself" and as the only pathway to vocational success. So few of the control students disliked school that no comparisons were possible.

In the Bachman, Wirtanen, and Green (1971) study, "potential dropouts, college-bound students, and others did not differ very much in their perceptions of school organization, teacher behaviour, and the like" (p. 65). They did differ, however, in their "personal attitudes toward their courses and toward school in general" (p. 65). Of those tenth-grade boys who rated their courses "very dull", approximately 40.0% left school early, and only 16.0% entered college. Those who rated them "quite interesting" were least likely to withdraw early, and most likely to go to college.

Miller (1967) contended that "the obligation of the school system is to learn how to deal with people who are quite different in terms of their ways of dealing with the learning situation" (p. 41). Specifically he was referring to their "outlooks, experiences, and capacities" (p. 41). Pleading for adaptability, flexibility, and "an effective school climate" (p. 43), he argued that the school must assume its share of the responsibility for the early school leaving phenomenon. "Patients or clientele do not fail; only practitioners do" (p. 41). Simply persuading school leavers to return to the same kind of situation that they were in before could hardly be considered a solution. Miller formulated his recommendations in the form of "administrative imperatives":

1. Schools must adapt to variations among students. "Variability and flexibility of programs an approaches are central" (p. 45).

2. "Schools must provide satisfactions to students" (p. 45), so special attention must be given to creating an appropriate school climate.

3. Schools must be staffed with more effective teachers.

Some of the evidence supporting these "imperatives" is examined in this section.

School and class size. The relationship between size of school and rate of early school leaving appears to be susceptible to the influence of external factors like the nature of the community and the ethnic composition of the student body, as well as internal characteristics such as program alternatives and school climate. Thus, Stroughton and Grady (1978) found that it was mid-range schools, with neither the supportive climate nor non-academic alternatives, that had the lowest holding power.

On the other hand, Barnes (1973) found that the three largest high schools in the South Okanagan region had "by far the highest dropout rate" (p. 27). Similarly, Harkins (1977) reported that in southern Ontario, "the larger the secondary school, the higher the dropout rate" (p. 60). What these conflicting results suggest is that size may not be as important as other factors related to school climate.

With respect to class size, Bledsoe (1959) found that larger classes at the primary level were over-represented in subsequent withdrawal statistics. Moreover, reducing class size in the higher grades did not undo the harm that had been done by insufficient attention to individual needs in Grades 1, 2, and 3. At the other end of the continuum, class size was cited spontaneously as contributing to the learning difficulties of Toronto "Early School Leavers," many of them New Canadians, who had left school before the age of 16 (Larter & Eason, 1978).

On the basis of an intensive meta-analysis of class size studies from 1950 to 1985, Robinson and Wittebols (1986) (cited in Altieri, 1990) concluded that the reduction of class size is neither a necessary nor a sufficient condition for improved student achievement. Promising positive effects were confined to the K-3 level, particularly in schools with significant proportions of disadvantaged and priority students. As observed by Altieri (1990), "the research does not justify an absolute limitation on class size or student-teacher ratios as a matter of general policy in isolation of many other factors involved" (p. 96).

Program. Weinrich (1966) made a plea for the development of special programs for "the neglected youth in our high schools."

> In our system of high schools (many of which we like to call comprehensive, but which in reality are far from it), the needs of some categories of youth are served much better than others; those who are preparing for the professions, the semi-professional and technological occupations and the highly skilled occupations in business, industry, and agriculture have received the lion's share of our attention and our resources. We have been so busy educating the more gifted (and in the process, striving for status for ourselves) that we have neglected 'the other half' (p. 3).

Specifically, Weinreich (1966) questioned the usefulness of 'general education' courses for students with limited academic abilities. Given that, in most cases, they are "just watered-down versions of college-preparatory courses" (p. 3) he did not consider them to be appropriate alternatives to standard matriculation courses.

Manning (1971) found that retention rates in technical and traditional programs were similar, but that there was considerable variability across schools. "This suggests that the attitude of the school and community may have much to do with the relative success of technical students in various schools" (p.62).

Collett (1980) reported the results of a longitudinal (1970-1979) study of the career development patterns of a random sample of 2700 Grade 11 Alberta youth from different high school programs. Predictably, given their higher level of ability, a larger proportion of students in the matriculation program completed the requirements of the Alberta high school diploma. Both the Business and Vocational programs, however, had significantly higher proportions completing diploma requirements than the General program.

When the Saskatchewan leavers in the Cipywnyk et al. study (1983) were asked what changes should be made in the school system, two of their top four responses were "more vocational and trades courses" and "a greater variety of courses, with some alternatives to academics." The responses of their parents were very similar, as were those of their teachers and principals.

School climate. The less tangible characteristic of schools related to early withdrawal tend to be the ones disliked by students in general. To place the feelings of leavers in perspective, the perceptions of both leavers and graduates are reviewed.

Pritchett and Willower (1975) found a significant relationship between student perceptions of custodial pupil control behaviour and negative attitudes toward school. The authors speculated that a snowball effect occurs. In schools in which external controls dominate, "school is made less attractive for pupils, increasing their alienation; and, in consequence, a still greater stress is placed by teachers on external controls, and so on" (p. 114). If this happens, "a kind of vicious circle in the affective domain may develop that could be difficult to break" (p. 114). Similarly, both the dropouts and the graduates in Dumka's (1970) Greater Victoria study condemned the use of corporal punishment, particularly for behaviours stemming from failure to make satisfactory academic progress.

Knowles and Henley-Lewis (1972) examined the attitudes of 437 Grade 12 students toward school in three secondary schools in British Columbia: a "student-centered" school, and two more conventional institutions in comparable socioeconomic areas. In the former, the principal had set the tone by contending that "the school should be far more concerned with the student's attitude toward learning than with his aptitude for learning" (p. 20). In one of the comparison schools, considerable effort had been made to democratize procedures with in a relatively conventional teacher-centered framework" (p. 22). The major finding was that "compared to students of similar backgrounds, the students attending a secondary school which was attempting to provide a human and personal atmosphere reported much more positive feelings about their school experience" (p.25).

MacKenzie (1967), bemoaned the fact that although schools have done an excellent job of giving responsibility and developing maturity in the top 10.0% or 20.0% of the student body, "the remaining 80.0% have not fared as well. A student who sits day after day in the midst of unrealistic learning demands is not being given a fair deal" (p. 353). What was needed in his view, was a serious commitment to individualized instruction. "It will be of no avail if we merely redouble our efforts with the same old techniques we think worked before" (p. 353).

Teachers. Watt (1974), expressed impatience with rhetoric about humanizing schools and proposed what, in his perception, was the only viable solution:

> Scores of books and articles have been written about humanizing large schools; perhaps the idea has been discussed to the point of boredom and indifference... To create a humanistic school, we need consider only one factor - the choice of the principal and staff. If the right people are chosen - people who are intelligent and want to teach, who like and respect teenagers, and who are considerate, kind, thoughtful, and freedom-oriented - the desirable qualities of the humanistic school will follow (p. 39).

Indirect support for this view is provided by studies of students' perceptions of their teachers. On the basis of responses from 6,152 students and 293 teachers in southern and western Ontario, Lonetto (1974) concluded that "the highly satisfied teacher may place interpersonal communication above considerations of performance or may achieve a unique balance between them" (p. 25).

Significantly, the students did not perceive a humanistic approach to teaching as incompatible with an achievement orientation in the classroom. In addition to being a good instructor, the ideal teacher was perceived as helpful, accepting of individual differences, willing to talk with and listen to students, even-tempered, friendly, encouraging, considerate, and in control of the class. Conversely, the descriptions of an undesirable teacher emphasized poor instructional techniques and "embarrassing or ridiculing students, or otherwise putting them down" (p. 26). As for proposed changes, most of them centered around "more teacher and student interaction outside of class" (p. 26), more mutual trust, more discussions, and better preparation for the outside world. A similar study in British Columbia (McKerlich & Auerbach, 1981) yielded virtually identical findings.

Of the school-related reasons for leaving reported by the Saskatchewan leavers in the Cipywnyk et al. (1983) study, the one cited most frequently after "learning not relevant to choice of career" was "dissatisfaction with the teachers and the teaching". The third was "not getting along with the staff". The leavers liked teachers who were "understanding and caring", "assisted students when required", "took time to talk to you", and were "friendly and personable". The teacher qualities disliked most were the converse of these positive characteristics (p. 17).

When asked what changes they would like to see in the school system, two of the top five recommendations made by the leavers pertained to "alternatives to academics". The other three were: "improved teaching competence"; "teachers need to be more caring, humane and encouraging", and "better teacher-pupil relationships" (p. 143). Their parents agreed that "better teacher-pupil relationships" were required (p. 149).

Theories and Models

The late 1980s witnessed the fortuitous convergence of a vital school reform movement, an accelerating shift from a manufacturing to a service economy, heightened concerns about issues of social justice, and a focus on equity of educational outcomes as a means to both economic and social renewal. The potential inherent in the Bachman et al. (1971) conceptualization of early school leaving as a lack of fit between leaver and school characteristics stimulated the development of several interactive models of school leaving and gave impetus to attempts to construct theoretical frameworks within which basic evaluative research could be conducted.

The interactive nature of the early school leaving phenomenon was seen as originating in the initial entry of specific kinds of students into specific kinds of schools:

> The background characteristics of students determine the kinds of schools and educational processes to which they have access...and the characteristics of schools play a role in attracting students with certain characteristics.
> (Natriello, Pallas & McDill, 1987 p. 169)

Although this initial matching, particularly in large urban centres, has been well documented (King et al., 1988) the variability of leavers, changes in the educational system, and in the social and economic contexts of schooling make it necessary to continue monitoring both leaver and school characteristics.

As Natriello et al. (1987) point out, the dropout population is not stable. Thus, in the last 15 years in the USA, there have been dramatic shifts in the extent to which identifiable sub-groups of leavers contribute to the overall dropout rate. The late 1980s rates for white females, and black males and females, were the lowest they have ever been. In sharp contrast, the rates for white and Hispanic males were the highest recorded.

The basic argument for monitoring rates and patterns is that the contribution of other factors can be isolated only if the effects of student characteristics known to be related to early leaving, such as SES, are controlled. Moreover, analyses of the leaver population must include data on specific sub-groups or types of leavers if schools are to assess the effectiveness of their regular programs and intervention efforts. At a time when a range of school reforms are being proposed and debated, one final point made by Natriello et al., needs to be kept in mind: "School reforms designed to improve the educational experiences for all students may have positive effects on some segments of the school population, and negative effects on others" 3(p.169) and may, in fact, aggravate already pronounced inequities in the schools and in society.

The monitoring of the school should be done within the rubric of "responsiveness", which comprises the following characteristics: smaller schools and programs, individualization of curricular and instructional strategies, sensitivity to cultural and community conditions, and continuous assessment of program impact on students, including leavers. If programs and interventions are not designed, implemented, monitored and evaluated in a systematic responsible manner, the kind of cumulative knowledge about drop-out prevention efforts required to improve retention and achievement will remain an elusive dream. - and so will the comprehensive causal model that would illuminate the processes underlying the structural factors that have been identified.

It is the development of such a model that Rumberger (1987) believes should be the goal of researchers working in this area. In his view, the "whys" and "hows" of student characteristics associated with school withdrawal have yet to be explicated. What is the nature of the processes at work in the school alienation and academic failure of Aboriginal students? What are the roles of language, race, parenting styles, or the value attached to parenthood?

The process of disengagement must also be addressed through an examination of school characteristics. The efforts of Ontario researchers (Lawton et al., 1988) have yielded vivid and compelling ethnographic portraits of the disenfranchisement and distancing of segments of the high school population, and of the relation among leaving rates, school culture, administrative style and policies, classroom climate, teacher commitment and professionalism, and community contexts. Similar studies in other parts of the country would permit the identification of robust correlational patterns from which causal relationships could be inferred and tested.

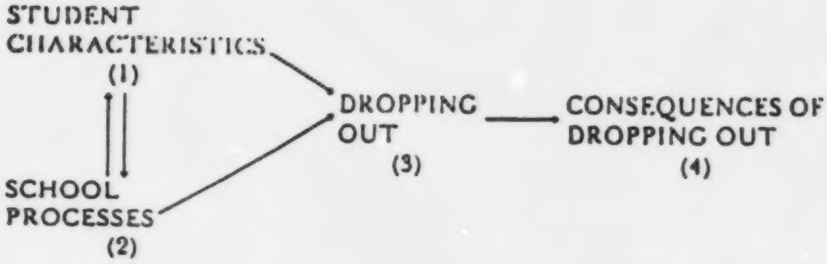
Specifically, a systematic exploration of interrelationships among the various factors associated with early school withdrawal would serve to separate causes from correlates. The cause of immediate school leaving may well be pregnancy or disruptive behaviour. The question that needs to be asked and answered pertains to the possibility that an underlying cause may be common to both the ostensible reason for leaving and the act of leaving itself.

Although the act of leaving school early is often described as the culmination of various family background and early school experiences, these factors have not been fully explored, either generally, or with respect to dropping out. Schools cannot change socio-economic status and family background; they can only respond to it. What is required is broad societal interventions, as well as educational response, in conjunction with efforts to measure the long-term cumulative effects of these various influences on early leaving.

Finally, the fact that there are different types of drop-outs, who leave school for different reasons, means that it may be necessary to develop separate models of the withdrawal process for different types of students.

Natriello, et al. (1987), contend that the adoption of a research agenda of this kind is a prerequisite to the identification of the actual causes of early school leaving, their relative influence, and their interrelationships. With powerful predictive formulas in place, it would then be possible to identify potential leavers at an early age, the optimal time for the design and implementation of interventions. Moreover, the most effective academic and psychological educational interventions for specific sub-groups of at-risk students could be identified. Finally, a cumulative research base could specify the optimal mix of educational and social interventions to help various potential and actual drop-outs.

The key elements for a "renewed research agenda on dropping out are depicted in Figure 1. (Natriello et al., 1987, p. 169). In the words of the authors, "this figure suggests a pattern of reciprocal relationships between the two antecedent components, the personal and social characteristics of the students, and the process aspects of their school environments." (p. 169). The act of dropping out is construed as carrying with it a set of "quality of life" consequences that have both personal, social, and economic implications.



The interaction between student characteristics and school processes proposed by Natriello et al. (1987) was elaborated by Wehlage and Rutter (1987) who interpreted the early leaving literature as suggesting that "in addition to the characteristics brought to school by the students, there are several institutional characteristics that are problematic..." (p. 77). In their view, the fundamental accommodation is the responsibility of the school, not the student.

> "If the intent of social policy is to reduce the number of dropouts, the policies and practices of schools will need to respond to this estrangement from the institution arising out of the social and family background of students" (p. 77).

Their position is consistent with the view that public schooling in a democratic society is obligated to respond constructively to children from all backgrounds and social conditions.

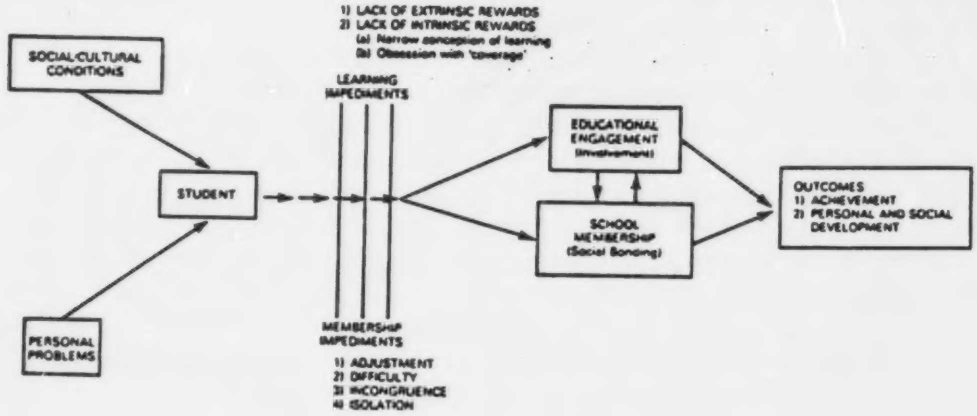
Further, they argue that the sorting and selecting function of the school does not mean that the school must be negative and alienating.

> "Selecting the college-bound elite is one task the schools should be engaged in; the remaining body of students should receive the kind of attention that will allow them to pursue all the schooling they can profitably use" (p. 85).

The school reforms that they recommend are intended to address specific issues inherent in students' perceptions of their schools and teachers: teacher interest in students, ineffective and unfair discipline, and widespread truancy. What is particularly telling, is that the views of graduates and leavers of their school experiences do not differ significantly. Where the two groups differ is in their frustration tolerance, i.e., their willingness to put up with the negative aspects of school regulations, curricula, classroom teaching practices, and teacher management styles. Successful students, motivated by both intrinsic and extrinsic reward systems, are capable of sustained effort, i.e., the intention, concentration and commitment required to master the knowledge and skills taught in school.

This sort of psychological investment on the part of at-risk students is, of course, inhibited by some factors that are beyond the control of the school. School engagement cannot occur in the absence of some minimal level of congruence between student and school values. Moreover, it cannot occur if academic success is translated into valuing or devaluating individual students. As Wehlage, Rutter, Smith, Lasko and Fernandez (1989) observed, "schools cannot reward a select few and continue to expect engagement from the rest" (p. 179).

As indicated in the Wehlage et al. (1989) model (Figure 2), for many students there are three major impediments to school engagement: the lack of a clear relationship between achievement and an "explicit and valued goal", the dominance of a narrow learning process, and teachers' obsession with covering subject matter. The inappropriateness of the learning process in most classrooms is a consequence of the fact that it tends to be abstract, verbal, sedentary, individualistic and competitive, and controlled, instead of concrete, problem-orientated, co-operative, and autonomous. In sum, school knowledge tends to be superficial and intrinsically unsatisfying, and it does not lead to a sense of competence.


1) LACK OF EXTRINSIC REWARDS
2) LACK OF INTRINSIC REWARDS
(a) Narrow conception of learning
(b) Obsession with 'coverage'
SOCIAL/CULTURAL CONDITIONS
LEARNING IMPEDIMENTS
EDUCATIONAL ENGAGEMENT (Involvement)
STUDENT
OUTCOMES
1) ACHIEVEMENT
2) PERSONAL AND SOCIAL DEVELOPMENT
SCHOOL MEMBERSHIP (Social Bonding)
PERSONAL PROBLEMS
MEMBERSHIP IMPEDIMENTS
1) ADJUSTMENT
2) DIFFICULTY
3) INCONGRUENCE
4) ISOLATION

The extrinsic reward for academic success is clear for those students who are preparing for university or other post-secondary institutions. For the others, there is little relationship between academic achievement and subsequent employment. The reaction to futile effort and meaninglessness is the development of a counter-culture that actively discourages academic achievement, and makes a virtue of disengagement from school.

It is this fundamental issue that Wehlage and Rutter (1989) contend must be addressed, not only through alternatives for potential leavers, but through systemic school reform that includes the provision of academic and vocational curricula that more directly connect adolescents to employment. In sum, Wehlage and Rutter (1987) argue that retention rates will not improve until school policies and practices are informed by a commitment to the principle of equity, and reflect "an enhanced sense of professional accountability among educators toward all students" (p.85). Further, educators must engage in "a renewed effort to establish legitimate authority within the institution by confronting student alienation, and providing a high degree of program structure, with clear, demanding, but attainable expectations" (p. 87). Finally, schoolwork must be redefined for both teachers and students in a manner that will allow a greater proportion of students to achieve satisfaction and success, and continue their schooling. The balance to be struck is the difficult one between academic excellence and equity concerns.

The other construct in the Wehlage and Rutter (1989) model is school membership, which subsumes both acceptance by a peer group and the approval of caring adults. This emphasis on the role of adults in the school setting harkens back to the studies in which early leavers described "good" teachers as those who accepted them as individuals and were willing to help them with academic and personal problems.

The mechanism through which school membership is attained is social bonding, defined as attachment to adults and peers in the school, commitment to institutional norms, involvement in school activities, and a belief in the legitimacy and efficiency of the institution. The converse of attachment is the feeling of being rejected by the school - and rejecting it in turn - that is reported consistently by early leavers. Conformity to school rules occurs if a rational calculation of one must do to achieve personal goals suggests that the payoff is worthwhile. Finally, if students lose their faith in the educational system, their reformulated goals lead them away from school to the workplace.

Four impediments to school membership have been proposed: adjustment, incongruence, difficulty, and isolation.

"Adjustment" is the term used to characterize the process of coming to terms with the relative impersonality of the junior or senior high school, and the greater social distance between teachers and students. As noted in earlier sections of this chapter, school leavers find this change in classroom climate particularly difficult to handle.

"Difficulty" refers to the problems that some students have in trying to do the academic tasks at their grade level. Academic success is essential if bonding to the school is to occur. For some students what is required is intensive remediation and tutoring; for others it is the way in which content is communicated that leads to boredom and lack of interest.

"Incongruence" describes: "the personal and social match between the student and the institution" (Wehlage et al., 1989, p.126). It is most applicable to students from lower socioeconomic and culturally or racially different backgrounds, and refers to fundamental differences in values and expectations that demand a great deal of accommodation on the part of both the student and the school.

"Successful schools not only match interventions...to differences...in student characteristics; they also respond to common deep-seated needs " (Wehlage et al., 1989, p. 113). It is those students to whom schools fail to respond and for whom the impediments to school engagement and school membership are insurmountable who become "marginalized," a state that precedes withdrawal, and may be an "identity" actively chosen by a student or thrust upon him or her by a particular kind of school.

Being marginalized meant being placed outside the ongoing stream of action in school. The margin was a place from which little or nothing was expected of the individual. Students could become marginal by school processes or they might choose deliberately to marginalize themselves. There were recognized patterns in the process. Leaving school was seen by some as a legitimate and face-saving response to having become marginal" (Lawton, et al., 1988, p. 70).

Some students, of course, arrive in high school already marginalized as a consequence of low academic ability, problematic family situations, or some sort of singularity, ie., a handicap, colour, race, religion, or immigrant status. School responses to such at-risk students varies from concerted retention efforts to exclusion or acceleration of the marginalization process.

In some schools, "some were made more welcome than others, for reasons that went beyond academic ability and achievement" (Lawton et al., 1988, p. 54). Teachers were seen as favouring achievers, and, inclined students tended to be removed to other buildings or parts of the building to ensure the success of their academically competent peers. If non-academic programs are not seen as useful, the fact that students fail to "engage" in them is only to be expected.

At the informal organizational level, the retention of students was deemed most likely in those settings where "behavioural and performance agreements were seen as positive and beneficial by most students" (Lawton et al., 1988, p. 56). Students in Advanced-level classes perceived themselves as more able to influence teachers than their General-level counterparts. Specific forms of tacit agreements characterized different schools with Advanced-level collegiate students being singled out for support and encouragement, Vocational school students being told that to obeying the rules would lead to employment, racially-mixed school students given the debilitating message of low expectations, and composite school students subjected to a behavioural contract that excluded academic achievement.

Schools also varied greatly with respect to the way they responded to student behaviour. "Some schools seemed to be more about people and their needs, and some were more about rules and their enforcement" (Lawton et al., 1988, p. 60). It was the student-centered schools that had better retention records. Finally, "schools which placed high mobilized resources to this end, were more likely to keep more of them" (Lawton et al., 1988 p. 61).

As indicated in the section in Chapter IV on variability of leaving rates, schools differ widely in their retention rates, even when they serve similar communities and student populations. The school system themes related to retention rates point to "factors under the control of school officials that can be changed to reduce dropout rates" (Lawton et al., 1988, p. 27).

Thus, a logical starting point for the development of a "comprehensive causal model of the dropout process" (Rumberger, 1987, p. 111), is the literature on exemplary secondary schools. This approach is particularly appealing because these schools reflect characteristics that drop-outs report as lacking in their schools. Moreover, if effective secondary schools were found to be more successful in retaining students and supporting their academic achievement, early school leaving would not have to be treated "as a separate problem requiring additional resources and effort" (Lawton et al., 1988, p. 27).

A review of the literature on effective secondary schools yielded seven categories of factors. As Lawton et al (1988) state, the categories generated are, at this point, hypothetical, and require further exploration and refinement, but they constitute a promising framework for similar studies in other parts of the country.

Figure 3

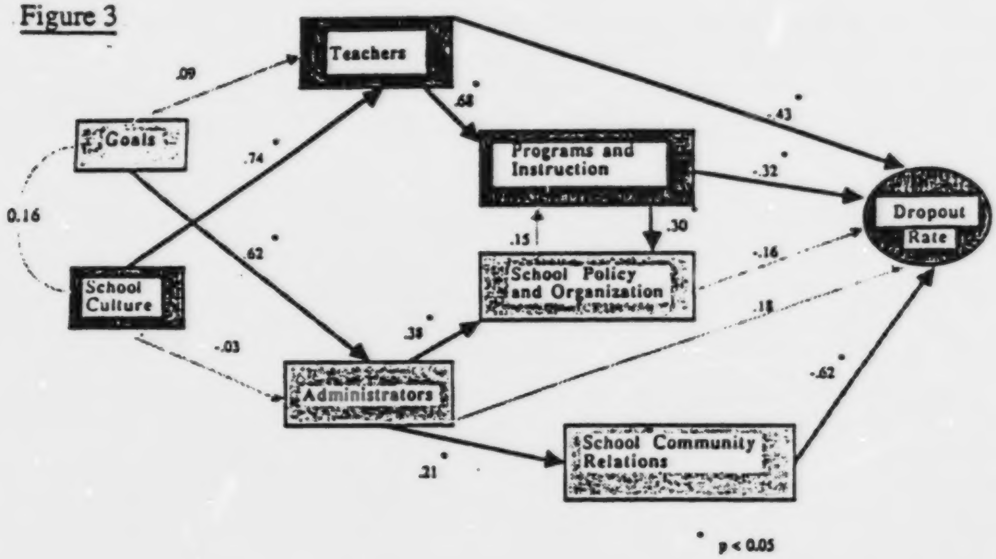


Figure 3.2. Path Analysis Model for Explaining Dropout Rate
(n = 58; regression analysis)

On the basis of a path analysis of data provided by 58 Ontario secondary schools in six districts, the impact of each causal variable on each effect variable was determined. The findings are summarized in Figure 3. Together, the five paths explain 55.0% of the variation in drop-out rate. (A negative relationship means that the effect of the characteristic relationship is to reduce the drop-out rate.) Three sets of characteristics proved statistically significant: School-Community Relations (-.62), Teachers (-.43), and Programs & Institution (-.32).

Two dominant paths were identified. The stronger one was School Culture, which has a positive influence on teachers (+.74) and Programs & Institution (+.68). The second one was the one that linked Goals with Administrators (+.62) and School-Community Relations (+.21). The variable Administrators was also linked to School Policy and Organization, but the latter had no effect on leaving rate.

The somewhat anomalous finding that the schools with more effective administrators had higher drop-out rates (+.18) was probably artifactual in nature, in that strong principals may have been recently assigned to difficult schools. There may, however, be a true relationship here that merits further study, as observational data suggests that the school climate preferred or determined by controlling administrators may not be conducive to the improvement of retention rates. (King et al., 1988; Lawton et al., 1988) In summary, the characteristics of early leavers may dictate a qualitatively different kind of school responsiveness and further accommodations of sub-group differences may be required.

The multiplicity of correlates of early leaving and the diversity of the reasons given for dropping out of high school have caused other researchers to adopt similar path-analysis models that permit the identification of direct effects of explanatory variables on the decision to leave or stay. Figure 4 depicts the sets of factors used by Ekstrom et al. (1987) to determine the effects of demographics, family educational support, and student school behaviours on withdrawal.

Figure 4

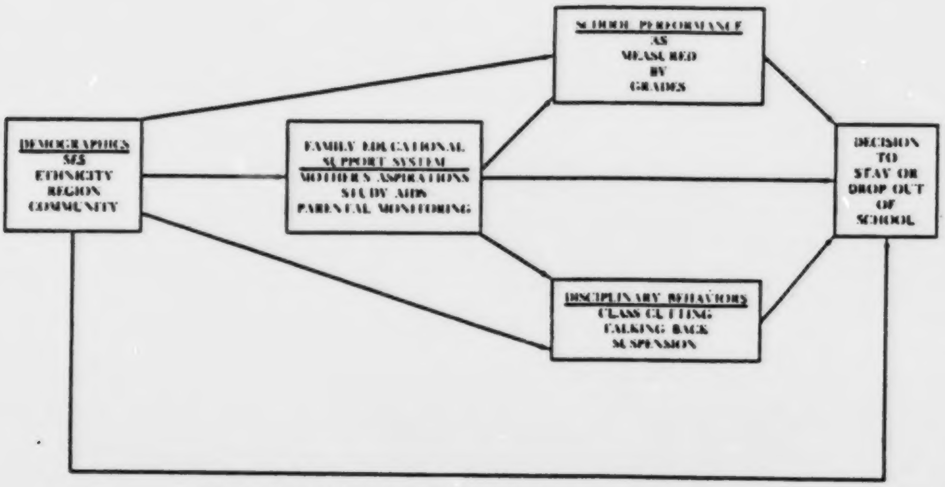

SCHOOL PERFORMANCE
AS
MEASURED
BY
GRADES
DEMOGRAPHICS
SES
ETHNICITY
REGION
COMMUNITY
FAMILY EDUCATIONAL
SUPPORT SYSTEM
MOTHER'S ASPIRATIONS
STUDY AIDS
PARENTAL MONITORING
DECISION
TO
STAY OR
DROP OUT
OF
SCHOOL
DISCIPLINARY BEHAVIORS
CLASS CUTTING
TALKING BACK
SUSPENSION

Figure 2. Path Model of the Decision to Stay In or Drop Out of School

The demographic variables related to the leaving decision were, in order of importance, intact family, SES, race/ethnicity, region, and gender. Black students in broken or single parent homes were not as likely to leave as whites and Hispanics. Overall, "other things being equal, whites and Hispanics were more likely to drop out of school than blacks" (p. 62). The "critical control variables" (p.62) were sophomore-year grades and achievement test scores. With other variables held constant, whites in the south were more likely to withdraw than whites in other regions; in comparison, blacks in the south were less likely to leave than their counterparts in other parts of the country. Among whites and Hispanics, male leavers exceeded female leavers; the black rates revealed the opposite.

The availability of study aids in the home was the only family-education support variable related to leaving. Mother's aspirations and parental monitoring did not have the significant effect predicted by the literature.

The three ability and attitude variables that were related to leaving were low grades (less important for blacks), mathematics test score (most true for whites) and external locus of control, ie. a feeling that one has little control over one's destiny. Behavioural problems were clearly predictive of early leaving.

The path analysis showed that behaviour problems were most characteristic of males with low verbal ability (vocabulary scores) and external locus of control who had little support from their mother for educational achievement. Self-reported grades were highest for students with high verbal ability. These students tended to be female, with supportive mothers, and were likely to be enrolled in the academic curriculum. Moreover, they had fewer behaviour problems, were involved in more extracurricular activities, and had an internal locus of control.

In summary, the critical variables related to drop-outs out were identified as school performance and problem behaviours. "These variables are more important in explaining drop-out behaviour than sophomore ability, as measured by test scores." (Ekstrom et al., 1987, p. 66)

The second overall finding was that behaviour and grades as distinct from the act of leaving were influenced by the home educational support system. In addition, "regardless of ethnicity, gender or curriculum choice, staying in school increases achievement gains" (Ekstrom et al., 1987, p. 67), particularly in vocabulary, reading and writing.

The authors concluded that parents must be encouraged to increase their interest in and monitoring of their children's school progress (p. 67). Similarly, school authorities must establish student monitoring systems that would "identify potential drop-outs prior to the high school years" (p.67) and permit early interventions "when the first behavioural signs (eg. disciplinary problems, poor grades, poor attendance) are noted" (p.67).

The statistical technique of path analysis is a particularly useful approach to disentangling the complex interrelated correlates of leaving identified in the literature. It permits an analysis of the relationships between process and output variables "because it provides a method of testing the validity of causal inferences for pairs of variables while controlling for the effects of other variables" (Lawton et al., p.42). The heuristic value of path diagrams in portraying systems of relationships provides additional support for the use of path analysis in a variety of contexts in which the process variables must need to be characterized in appropriate ways. Whelage and Rutter (1987) classified the characteristics and correlates discussed in this chapter into two categories: fixed characteristics and the social conditions encountered in school. The fixed characteristics included SES, race, academic ability/performance, self-esteem and locus of control. The school context conditions included peer relationships, sociability, disciplinary problems, and formal schooling expectations.

Their study of a 40.0% random weighted sample of students from the High School And Beyond Study project involved a multivariate discriminant function analysis of the data. This analysis yielded two functions. Function I: Academic was found to account for 89.0% of the variance among groups. The most important variable was Expected School Attainment (+.61) which correlated with test results (+.29), SES (+.25) and self-reported grades (+.22). The greatest differences between the drop-outs and the college bound students related to expectations, ability/achievement, SES and grades, with the two groups falling at the low and high ends of the continuum, respectively, on each variable.

Once the academic function was partialled out, the following variables emerged as important predictors: Truancy (+.47), Expectations (+.45), Discipline Problems (+.41), Lateness (+.25), and Hours Worked (+.22). This function discriminated best between drop-outs and academically similar stay-ins or persisters.

The two-function model predicted 63.0% of the drop-outs, 54.0% of the stay-ins, and 84.0% of the college-bound, the stay-ins, and 84.0% of the college-bound. The stay-ins, with widely varied backgrounds, abilities and behaviours may choose to leave or go to college for reasons not explained by the model. When drop-outs were not identified correctly they tended to be placed in the stay-in category.

The emerging models of the causes of early school leaving described in this section are beginning to clarify cause and effect relationships and to provide clear conceptual frameworks for the design of specific ameliorative measures as well as for systemic school reform. Statistical techniques like path analysis and discriminant analysis are providing a way of testing hypothesized causal links and determining the efficacy of efforts directed at school, community and family variables. The significance of these recent developments lies in their potential to generate both overall and sub-group specific strategies rooted in empirical data and susceptible to objective, valid and reliable evaluation. In summary, there is reason to hope that Mann's (1987) summary of "what we know" about early school leaving will not be an accurate description of the art a decade or two hence:

> What have we learned? First, people feel that too many students leave school without graduating. Second, students are impelled to do that by a wide range of circumstances. Third, practical improvements depend on knowing what was done to whom, but a) virtually everything is being done and b) at the delivery level we cannot yet tell to whom or with what effect. Thus, we are doing a lot and learning a little about the multiple palliatives. (p.9)

The subsequent chapters are devoted to an examination of these "multiple palliatives" from the perspectives of researchers, school authorities, and early school leavers themselves. In Chapter VIII a number of recommendations to guide program development and evaluation are preferred.

VI. SOLVING THE PROBLEM

Characteristics of Effective Drop-Out Prevention Programs

A number of authors have attempted to describe or list the characteristics of effective drop-out prevention programs. A word of caution is inserted here. From our review of the materials collected as part of this project, we often found that assertions about the value of programs were often based on a few or several descriptive studies. Working from experience and judgement, the value of which should not be denied, several authors have then concluded that this or that type of program was effective. When we delved deeper into the original data we did not always find empirical evidence to back the claims being made. Nevertheless, there is a consensus of opinion in the literature on many points.

Wehlage and Rutter (1987), in their review of alternative programs, found that at risk students responded positively to an environment that combines caring relationships, personalized teaching and a high degree of program structure which has clear but attainable expectations. Boyer (1983) in a major study of American high schools also found that close relationships between a student and a teacher or counsellor was effective. Such programs provided the student with a trusted mentor with high standards and clear goals.

A US Government study (US Government Accounting Office, 1986) concluded that key ingredients included a caring and committed staff, a non-threatening classroom environment, individualized instruction, a low student/teacher ratio and flexible curricula and school hours. To a lesser degree, this survey revealed that links with social service agencies and local employers contributed to the success of such programs.

Hamilton (1986) compared a number of drop-out prevention programs and found the following characteristics to be common:

- they separate potential drop-outs from other students
- they have a strong vocational component
- they use out-of-classroom learning
- they offer small groups and individualized instruction and offer more counselling than regular schools.

Radwanski (1987) Cites Mills' (1987) finding that teachers most effective in reaching high-risk youth were upbeat and empathetic. Radwanski also saw value in the regular teacher mentoring role so that youth feel that secondary schools are less impersonal.

Mann (1987) discusses successful strategies in a novel way. He describes effective programs as having the four C's - cash, care, computers, and coalitions. Sufficient funding, caring staff; the use of computer assisted learning with teacher support and the support of parents, local businesses and the community are the key components.

Pallas (1986) and Anderson (1984) argue that individualized counselling and academic plans are a key element for success.

Before we begin the analysis of the effectiveness of the different strategies to reduce drop-out rates, a "grid" is presented on page 70 which categorizes the different types of strategies.

The two basic categories are goals and means in this analysis. By understanding the different goals (prevention, intervention, transition and re-entry) as well as the different means (instruction, support services, in-school climate and family/community support) we understand more easily both the breadth of potential responses to the problem as well as the need to use combinations of different goals and means in a comprehensive approach to respond to the diversity of students.

Categorizing the Strategies

For the purposes of identifying and describing the many general or specific strategies used to reduce school drop-out rates, this paper contains a "grid" to categorize those strategies in respect to the nature of their goals and the means used to achieve those goals.

A Continuum of Goals

This paper identifies a lengthy list of general or specific strategies that can be grouped in terms of four basic goals. These different goals roughly correspond to the stages of schooling.

- **Prevention Strategies (Elementary schools and earlier)**

  These strategies attempt to prevent the development of negative factors which correlate with early school leaving or to promote conditions which support school retention. Such strategies include initiatives such as pre-school early intervention programs, elementary school remediation and support programs, elementary school guidance programs, effective parenting programs, long-term school "reforms", effective school programs, home-school liaison programs, parent involvement programs and other measures.

- **Intervention Strategies (Junior and Senior High Schools)**

  These strategies attempt to support students "at risk" of dropping out through initiatives such as alternative instructional programs or schools, specialized support services, peer counselling, mentoring, tutoring, help with personal health or social problems, curriculum change to increase relevance, attendance monitoring and other measures.

- **School to work transition strategies (prior to and after leaving school)**

  These strategies attempt to persuade students to stay in school by strengthening the relationship between schooling and employment, thereby making schooling more relevant to the student and making the preparation more relevant to the labour market. Cooperative education programs, work orientation workshops, vocational counselling, career awareness programs in elementary schools and school-business partnerships are all examples of this type of strategy.

- **Re-Entry Strategies**

These strategies attempt to retrieve students who have left school and offer specialized instructional and support programs. Such schooling or education may occur in informal educational settings. Alternative schools, literacy programs, specific training programs, job entry programs are all examples of this type of strategy.

A Variety of Means

In order to achieve these four basic types of goals for school retention, there are four basic categories of means. Most successful strategies appear to use a combination of these means. These different means roughly correspond to the institutions, agencies or organizations in the community which control the delivery of such programs or services.

Instructional Strategies (primarily delivered by schools)

These strategies focus on different aspects of instruction; the curriculum (either "core" or specialized courses), teacher in-service or pre-service training, teaching/learning materials, and teaching methodologies. Examples of this type of strategy include curriculum change, introducing specialized programs or courses, improving teacher awareness or attitudes, supplying better classroom materials or modifying teaching methods.

Strategies which provide support to youth or families (delivered primarily by health, social services, employment agencies as well as by schools)

These strategies attempt to increase the support provided to "at-risk" youth or families. Health and social services, parent or family counselling, employment counselling, alcohol/drug and pregnancy prevention programs, and school guidance programs are all examples of this type of strategy.

In-School Climate Strategies (primarily delivered by schools with support from the community)

These strategies attempt to create a more supportive school environment for students. Such strategies address student-teacher relationships within the school. Examples include in-school mentoring programs, revisions to student suspension procedures, parent involvement programs and community schools among others.

Family/Community Support Strategies (delivered by institutions, agencies, employers, municipalities, organizations, media and families)

These strategies attempt to create a more supportive environment within the community. Strategies in this category include the formation of school or school district "teams" or committees to prevent school drop-outs, community or public awareness initiatives, development of specific policies by institutions or agencies, local employer hiring practices, business or community outreach activities, and effective parenting programs.

The grid which categorizes the many strategies to reduce school drop-out rates can be described by this simple diagram.

GOALS

MEANS

	Prevention	**Intervention**	**School-Work Transition**	**Re-Entry**
Instruction				
Support Services				
In-School Climate				
Family Community Support				

An Overview of Evaluative Research in School Drop-Out Prevention

The literature on at-risk students indicates that dropping out of school is a complex phenomenon. Background conditions arising from family, social and economic circumstances all can contribute to an individual's decision to leave school. Poverty, discrimination, joblessness, crime and conflict-ridden neighbourhoods take their toll amongst many youth. Some students, regardless of their race, class or family status, develop personal problems that make continued schooling difficult or impossible; physical health problems, drug abuse, pregnancy and psychological depression, prevent these students from staying in school. It is also the case that some school policies and practices lead students to quit school. Some schools are characterized by massive student course failure, frequent use of suspension, high rates of grade retention and inadequate attendance policies, encouraging truancy and poor achievement. Each of these school conditions indicates not only ineffective practices but a lack of concern and accountability with respect to at-risk students.

It also seems reasonable to assume that these factors interact with one another in ways that are difficult to understand. This web of conditions surrounding those at risk of dropping out makes intervention a formidable challenge for all educators (Wehlage, Rutter, Smith, Lesko and Fernandez, 1989).

General Comments About Evaluative Research

The majority of research done regarding at-risk youth has been descriptive in nature. True experimental scientific research designs are difficult models to follow when investigating such vast arrays of variables found under the heading of: Education, Employment, and Early school leavers. For this reason, much of the research has opted for a methodology that is more descriptive (PIOR, 1990, Wehlage, 1989, Hahn, 1987).

Needs assessment are often the underlying objective of descriptive research. Descriptive research projects are often useful in order to define trends of the multiple variable related to school leavers: male/female achievement/retention; school dropout rates; ethnic and language differences; etc. Descriptive research can be effective in determining the cognitive and social predictions of school achievement and retention. In the context of such studies, researchers use instruments/tests to measure ability, cognitive and skills development (PIOR, 1990).

Descriptive methodology has been used effectively to gather data and complete analyses of individuals considered "at risk" and their social/family background: income ethnicity, marital status, milieu, etc. Demographic trends and their correlation to the numbers and characteristics of school leavers can be useful to school and government authorities. Present and future needs of the social services sector can be established for schools or school boards, at the regional, provincial and national level. This type of research is also useful to evaluate changes needed to the curriculum, teacher training, inservice, and to serve as a basis for policy development of intervention services and programmes for at-risk youth (PIOR, 1990).

Longitudinal Studies

Longitudinal studies have increased in number during the past decade. Educational research rarely allows for true experimental conditions. The isolation of variables is most difficult in the educational setting. Longitudinal studies are less popular due to time constraints and the nature of the problems to be investigated. Wherever possible longitudinal data has been utilized in our findings to demonstrate the effectiveness of intervention strategies but one must keep in mind the limitations mentioned above. (PIOR, 1990)

Other Difficulties

In reviewing the evaluations of drop-out prevention programs, a number of difficulties were identified which have limited efforts to investigate the effectiveness of different strategies to reduce drop-out rates. The restrictive timelines of this project may have resulted in our overlooking materials. However, it is useful to list some of those difficulties here:

- More longitudinal studies or more use of research designs are required to overcome the costs and complications associated with longitudinal research.

- The lack of commonly used definitions and student tracking systems makes comparisons more difficult.

- The narrow range of evaluation criteria restricts analysis. Measures should include a variety of standardized and specific tests to evaluate things such as attendance, retention, graduation, academic performance, self-esteem, changes in perceptions about school and most importantly, "school membership", "educational engagement" and "school-student match" discussed earlier in this summary.

Having restated our preliminary concerns and cautions, let us now return to the "grid" we have developed to group the different types of strategies to reduce school drop-out rates. This part of our paper makes several general comments and reports the major findings in relation to:

- Prevention Strategies

- Intervention Strategies

- School to Work Transition Strategies

- Re-entry Strategies

Prevention Strategies

The perception that many at-risk students arrive at school with a deficit that requires remediation has led to the implementation of preschool intervention programs that were designed to provide these children with the skills they required to be successful at school. Conclusions as to the effectiveness of such programming have varied across studies and time (Arnzen and Verduin, 1987; Hobbs, 1984), but these programs appear to have increasing positive effects on children's development (Kagan, 1989; Powell, 1989). When parents are involved in such efforts, the positive effects are enhanced and longer lasting (Greenberg, 1989; Hunter, 1989; Arnzen and Verduin, 1987; Inner City Initiatives, 1990A).

A number of evaluations of preschool programs have found that factors which increase the vulnerability of children begin before their enrolment in such programs. They begin at birth (Schorr, 1988; Arnzen and Verduin, 1987). Furthermore research on preschool has found that strong effects on language and I.Q. scores of at-risk children tend to diminish each subsequent year until by the 2nd or 3rd grade they are not detectable (Slavin and Madden, 1989). Consequently, assisting at-risk students requires more than preschool programming.

Over the years, a variety of academic approaches have been developed with the aim of helping at-risk students. In the past, the emphasis was in remedial programs which were applied outside of and usually in addition to regular classroom instruction. These programs were traditionally used with students who were already behind their classmates in basic skills. However, more contemporary approaches have led to active-interventionist strategies that try to prevent students from falling behind in the first place (Slavin and Madden, 1989).

In the last two decades, research findings enhance our capacity to improve outcomes for disadvantaged students. We have multiple lines of evidence which indicate that educational programming which incorporates early intervention, substantial parent involvement, empowers teachers and utilizes community resources and effective instruction can make a significant difference in the achievement of these students (Kagan, 1989; Levin, 1989; Schorr, 1988; Slavin and Madden, 1989; Hawkins and Catalano, 1990).

The underlying message from this research is that there is no single approach that will eliminate at-risk students. The most effective approach co-ordinates the efforts of the school, the family, the community and social services agencies. Such a coordinated approach incorporates a comprehensive set of strategies that mutually reinforce each other in order to enhance the achievement of disadvantaged students (Slavin and Madden, 1989; Inner City Initiatives, 1990A; Hobbs, 1984; Kammerman, 1989; Kagan, 1989; Committee for Economic Development, 1987; Sherman, 1987; Walz, 1987; Passow, 1987; Peck et al., 1987; McMullan et al., 1988).

Slavin and Madden (1989) summarized the key research findings regarding Early Prevention Strategies.

1. First grade prevention programs that apply intensive resources, which include tutors and/or small group interaction, are extremely successful in increasing students' reading achievement. Reading recovery, the one model with data on long-term effects, produced effects that persisted for at least two years.

2. Instructional methods that accelerate student achievement, especially that of students at risk, include continuous progress models and cooperative learning programs.

3. Supplementary/remedial programs that have proven to be effective include remedial tutoring and some computer assisted instruction.

4. Some general principles characterize effective early intervention programs for students at-risk:

a) Effective programs are comprehensive and include teacher's manuals, curriculum materials, lesson guides, and other supportive materials.

b) Effective preventive and remedial programs are intensive, using one-to-one tutoring or individually adapted computer-assisted instruction.

c) Effective programs frequently assess student progress and modify groupings or instructional content to meet students' individual needs.

Overall, the research on early prevention programming indicates that children participation in programs of good quality is associated with several positive outcomes. First, participation in quality programs appears to promote relatively high levels of social competence with peers and friendly behaviour. Furthermore, there is considerable evidence drawn from a number of studies on preschool programming that participation in quality programs can have a significant effect on cognitive development, especially in children from disadvantaged homes (Kagan, 1989; Kammerman, 1989; Hobbs, 1984).

Intervention Strategies

School Reform

There is overwhelming agreement among researchers and educators regarding characteristics of "Effective Schools" (Quirouette, Saint-Denis, Huot, 1990; King et al., 1988; Lawton et al., 1988; Rumberger, 1987; Zey, 1984; Quirouette et al., 1990; Inner City Initiatives, 1990A). Wehlage et al. (1989), succinctly report the research findings regarding school reform. Effective schools provide at-risk students with a community of support. School as a community of support is a broad concept in which school membership and educational engagement are central. School membership is concerned with a sense of belonging and social bonding to the school and its members. Educational engagement is defined as involvement in school activities but especially traditional classroom and academic work.

The strength of school membership and educational engagement for students is due primarily to the way in which schools interact with them. Schools successful in dropout prevention created a supportive environment that helped students overcome impediments to membership and engagement. Conditions that accompanied this environment were a professional culture among educators that accepted moral responsibility for educating at-risk students and sufficient autonomy and resources to encourage educational entrepreneurship in the development of new programs for students (Wehlage et al., 1989).

Several impediments to students' educational engagement can be identified. For non university bound students, one is the apparent absence of any payoff for working hard in school. Academic achievement makes little difference in terms of their entry-level employment, and they have no plans to continue their education. Engagement is further reduced for many students when the conception of learning in school is too narrow. Abilities necessary in the world of work are little used or recognized in the classroom. School learning is constricted in methods and context to such an extent that intrinsic interest is squeezed out. Finally, engagement is weak for many students because the curriculum is trivialized by an obsession with coverage. Because course-taking in high school means students are asked to cover superficially a wide variety of topics and information, the material itself becomes meaningless; as a result, learning does not convey to students a sense of competence or intrinsic reward (Wehlage et al., 1989).

There is a unified agreement among researchers that programs should be matched to student needs and problems, and that strategies should take advantage of student interest and strengths. Some students need a haven from serious home or personal problems where they could receive adult guidance. Others respond to vocational experiences that provide a sense of competence and a road map to the future by linking school and employment. Others such as pregnant and mothering girls respond to a curriculum and environment emphasizing child development and the importance of being a good mother. Still other students respond to the challenge of employment or learning a marketable trade. One major implication of research with at-risk students is that schools are successful with at-risk students when the institution accepts a proactive responsibility to educating these students. This responsibility is derived in part from a teacher culture characterized by a moral obligation to serve youth. This form of professional accountability is sustained by certain attitudes and practices that foster a positive school culture and caring approach, thereby making student success more likely. There is a strong belief among researchers that it is the strength of teachers sense of professional accountability that is the fundamental strength in effective schools. An overriding belief among researchers is that whatever the technical feature of schools and programs, schools without the basic commitment will remain ineffective with at-risk students (Quirouette, Saint-Denis, Huot, 1990; King et al., 1988; Lawton et al., 1988; Rumberger, 1987; Wehlage et al., 1989; Hahn, 1987; PIOR Consultants, 1990; Walz, 1987; Passow, 1987; Hebard et al., 1986; Druian, 1986).

School Based Intervention Strategies

A list of school based intervention strategies that researchers and educators have found evidence indicating a positive impact on at-risk students.

- Monitoring and tutoring and sustained counselling (student) (Walz, 1987; Druian, 1986; Zey, 1984; Quirouette et al., 1990; Inner City Initiatives, 1990A).
- Utilizing instructional technologies (School) (Inner City Initiatives, 1990A).
- Flexible schedules and alternative programs (school & instruction) (Hebard et al., 1986; Strother, 1986; Sherman, 1987; National Foundation for the Improvement of Education, 1986; Walz, 1987; Ruby, 1987; Nathan, 1987; McMullan, 1988).
- Parental assistance and involvement (school & community service) (National Foundation for the Improvement of Education, 1986; Walz, 1987; Passow, 1987; Marockie & Jones, 1987).
- Learning styles based instruction (Student-Instruction)
- Concentrated reading and writing programs (Student-Instruction)
- Quality kindergarten programs (school - service)

- Cooperative work-study programs and career counselling (student-school-Community-Instruction)
- Staff development programs (school climate)
- School based management (school climate)
- Community and business collaboration (school & business-community support)
- An array of social services including health care, family planning, education and infant care facilities for adolescent mothers (community support)
- Concentrated remediation using individualized instruction and competency based curricula (school)
- Summer school programs (student)
- Heightened accountability for dropout rates at all levels of the system of public education (school)
- Internship or apprenticeship programs (school & community)
- Information/sensitizing of educators (school)
- Vocational training, Physical Education counselling, job experience (student)
- Department store/store front projects (school)
- Learning skills programs (student)
- Drop back programs (school) (Karp, 1988; King et al., 1988)
- Home/school programs (schools & community)
- Social/community intervention programs (community)

Intervention strategies, dropout programs and at-risk research do not produce effective positive and lasting results with youth, if they do not focus on or do not give needed attention to the affective domain of the individuals identified as early school leavers (PIOR, 1990; Inner City School Initiatives, 1990A; Quiroutte et al., 1990; King et al., 1988; Lawton et al., 1988; Rumberger, 1987).

School to Work Transition Strategies

The transition from school to work represents a critical period in the life of an individual. Regardless of educational credentials, finding suitable employment is a milestone and an achievement most people remember. Youth employment, the role of the secondary school and the awkwardness of young people as they move to the world of work concerns researchers from many disciplines, educators and policy makers.

Lawton, Keithwood, Batcher, Donaldson, & Stewart (1988) conducted a thorough review of the school to work literature, analyzed a questionnaire survey and conducted case studies of schools. Their findings are based on 60 sources, twenty each from Canada and the United States and other English speaking areas. Their study produced 19 themes, six related to individual and personal characteristics, five are related to social backgrounds, and eight are based upon the relationships between education and employment. They have classified the transition process as having three stages: school related factors, an interim period and the employment situation. In addition to this process, the transition may be defined as a phase when adolescents become adults and as a time period between two hierarchical systems, school and work. The end of school is normally a disjunctive phase of life, but changes in the labour force have exacerbated the problems many young people have when moving from school to work (Lawton et al., 1988).

The identified themes persist throughout the three stages of the transition period. The most important themes appear to be the influence of gender and personal characteristics, the influence of part-time work upon students, the success of co-op and other work-related school based programs with some students, the influence of family and friends at the time of leaving school, the effect of school evaluations upon students lives, and the need for more communication between educators and employers with regard to credentials, work-related skills, and performance.

The links between Education and Employment by themes emerging from the literature review are summarized below (Lawton, Keithwood, Batcher, Donaldson & Stewart, 1988).

Links between Education and Employment by Themes Emerging from the Literature Review (The Three Stages of Transition: School-related, Interim Period, Employment)

Individual and Personal

1. Student self-esteem and "school weariness" affect transition. (School-related)

2. Students with low retention levels need assistance with transition. (School-related)

3. The transition is a time of personal growth and decision-making. (Interim Period)

4. The transition is a disjunctive period for many. (Interim Period)

5. Gender and personal characteristics are major influences when in transition. (Employment)

6. Job satisfaction affects retrospective opinions of the transition and of school. (Employment)

Social background

1. Family/friends affect educational performance, attained education. (School-related)
2. Schools reproduce social divisions which influence the transition. (School-related)
3. Those who have good linkages find the transition easier. (Interim Period)
4. Family and friends provide contacts during the transition period. (Interim Period)
5. (Un)employment levels, including part-time work, are an increasing concern. (Employment)

Interrelationship of Education and Employment

1. More attention to aspects of employment in school would influence the transition. (School-related)
2. School credentials are used as a screening device by employers during transition. (School-related)
3. Secondary schools should focus more upon transition links with the community. (School-related)
4. Presentation and communication skills influence employers and make transition easier. (School-related)
5. Job entry level is an important aspect of a successful transition. (Interim Period)
6. Part-time work may be an important component of transition. (Interim Period)
7. Education is a decreasing economic investment, therefore, the transition is more difficult. (Employment)
8. Educational Channelling affects employment opportunities during the transition. (Employment)

The Lawton et al. (1988) study confirms the concerns expressed by other researchers. Concern is expressed about the influence of part-time employment upon school performance, attainment and extra curricular activities. King et al. (1988) found little evidence that part-time work contributes to students deciding to leave school. "The vast majority of students who drop out do so because there is little advantage in remaining; only a small proportion of students actually leave school as a result of full-time job opportunities available to them (King et al., 1988, p.132). Co-op education and other work related programs are praised for how they bridge the gaps between school and work, but there is recognition that much more could be done, especially for students in the lower levels. Greater clarity with regard to school goals and objectives and more individualized monitoring is needed. Transitional decisions are made without much formal consultation with prospective employers or knowledge of market place conditions. Little tracking of former students is done although most high schools have informal knowledge of graduates who are doing well. Those students who have good connections, whether at school or at home, find the transition period easier.

> Part-time work is a very important component of many students' lives; this experience may or may not facilitate career development and usually depreciates school performance, but provides social prestige. For those who continue with post-secondary education, there is increasing competition and deferment of some aspects of the transition process. While the value of secondary education may be decreasing as a direct economic investment there is no doubt that as an ideal it remains a value which most people seek to realize (Lawton et al., 1988).

Re-Entry Strategies

Luring Dropouts Back to School

In Dropouts in America (Hahn, 1987) indicates that research on re-entry programs has yielded disappointing results. In one American study 76,000 disadvantaged youths in 17 cities between 1977 and 1981, found that by age 19 only half of the participants had graduated from high school while almost 40% had dropped out. These results were achieved in projects that guaranteed minimum wage, part-time jobs to students who stayed in school. These youths, some of whom were parents, obviously required stronger incentives than after-school jobs in order to stay in school. Many were several grade levels behind in reading and math and did not wish to return to traditional learning environments. Almost 80% of the small number of dropouts who did return chose alternative educational programs or GED classes rather than regular classrooms. Among those who went back to traditional classrooms, about 40% left school again, becoming, in effect, double dropouts.

Research evidence on numerous social experiments have shown that classroom training, combined with work experience, was more help to dropouts than pure work experience. There is solid evidence that the Job Corps does help participants to find employment. Participants in the Job Corps earned an average of 15% more per year than did a similar group of nonparticipants. A higher share of participants also completed high school, entered the military and stayed off welfare programs, studies reveal that the cost per participant in Job Corps has been high, the benefits of the program appear to exceed the costs (Hahn, 1987).

The success of the program is attributed to the intensity of services, the mix of remedial education and skills training. In addition participants live away from home, which frees staff members and participants from distracting influences and allows them to take seriously the challenge of upgrading skills.

Youth Employment Skills Canada, Inc. (YES CANADA) in a three year project reports a promising program of labour market assistance for young people. The program offered over a thousand disadvantaged youth an integrated twelve week program of academic upgrading pre-employment training, life-skills and motivational development. About two-thirds of the participants in the program either graduate from it, or after having successfully completed at least six weeks of the program left with a positive exit into a job (Kubiski and Associates Ltd., 1989).

Kubiski and Associates Ltd. (1989) report that they do not have data to appraise the net impact of "YES CANADA" on either its participants, or on local labor markets. The quantitative data suggest that perhaps eight out of ten young people who complete the program satisfactorily go on to make a long-term labour market connection either in work, training, or advanced schooling. The qualitative data indicate that "YES CANADA" has significant and lasting positive impact on the participants who do not drop out, with nearly half of them viewing the program as having had a major impact on their lives up to two years after leaving the program. The key changes appear to result from academic upgrading, increased motivation and confidence, and improvement in attitudes toward work and school.

The YES CANADA pilot project appears to have demonstrated that disadvantaged Canadian youth will participate in a twelve-week program without training allowances. It also shows that a program having an explicit motivational component can have positive benefits, even without specific job skills training. It also demonstrates that business people can play a lead role in establishing and directing a joint youth labour market program with government, but that the private sector is unlikely to provide the main source of funding for such a program (Kubiski and Associates Ltd., 1989).

Hahn (1987) reports that the most vital lesson educators and trainers can derive from the review of second chance programs is the importance of integrating and relating the critical components of a comprehensive effort. Conventional education and remediation are not by themselves effective for the at-risk population. Isolated work experience will not reclaim impoverished and troubled youths.

Hahn (1987) summarizes the important lessons to be learned about designing programs to prevent students from dropping out and to help those who already have dropped out. Isolated work experience programs have little value in increasing the employability of dropouts. Dropouts should work, but the experience from the work sites should be used as pedagogical reinforcement in a classroom component that is clearly connected to the job. Dropouts should learn, but the curriculum should relate to the functional skills needed in the workplace. Dropouts should acquire vocational skills, but first they need to learn to read. They should learn to read but the learning environment should not resemble a traditional classroom. Re-entry students should be taught by caring teachers, but the individuality of each student should be reflected in the teaching technology used. Dropouts should be prepared for the labour market through pre-employment work maturity services, but not until they are genuinely ready to conduct a job search. Writing resumes and practising job interview skills should be "exit" services, not the centrepiece of dropout prevention or remediation. Above all, program services must to some degree be intensive, there must be sufficient time on training and learning tasks (Hahn, 1987).

These are not revolutionary recommendations, they are part of the web of school reform described by many analysists (Karp, 1988; King et al., 1988; Kubiski and Associates Ltd., 1989) including Canadian researchers and educators.

Alternately, when "second chance" efforts are fragmented, compartmentalized, and imperfectly developed and when long delays and gaps occur in the delivery of the training, the program reinforces the youths' underlying sense of incompetence. (Hahn, 1987)

The concept of alternative schools is examined in discussions of re-entry programs. Some educators feel there is promise in establishing alternative schools for at-risk students or returnees (Armove &

Strant, 1980; Gold, 1978; Hawkins & Wall, 1980; Whalen, 1985). In contrast, however, Foley (1982, 1984) and Hahn et al. (1987) point out that such schools may only work for highly motivated former drop-outs.

A Discussion of Some Successful Strategies

Mentoring and Tutoring

One of the most effective strategies for helping an at-risk student is one to one involvement with a significant other - either a mentoring or a tutoring situation. A mentor can serve as a role model which may be missing from the student's life, guide the student into new experiences, and provide the necessary adult attention and support that will encourage the student to finish school and plan for the future. Mentoring activities can be business or community orientated, use school personnel or focus on work and careers. At-risk students are frequently deficient in academic subjects, a tutor can provide extra help in subjects and reinforce study skills that will be helpful in other school activities. Peer tutoring and cross age tutoring has been shown to be a particularly powerful intervention for at-risk students.

Research data indicate that mentoring and tutoring have helped at-risk students: reduce their disruptive school behaviour and suspensions, increase school attendance; increase bonding to school, improve school achievement and likelihood of graduation, increase personal worth and self confidence; and develop more awareness of the world of work and future career requirements.

(Wehlage, 1989; Hahn, 1987; National Dropout Prevention Centre, 1990; PIOR, 1990; Inner City Initiatives, 1990A; Zey, 1984; Quirouette et al. 1990)

Parental Assistance and Involvement.

Research shows that the most important element to successful approaches with at-risk students is early intervention efforts and researchers have agreed that the earlier intervention programs are started the better (Carter, 1984; Meyer, 1984). The more skills a child can bring to his or her first experience in school, the better the child will perform later on. Thus if high quality early intervention programs with parental involvement are offered, the probability that the child will perform better in his or her later school years increases. Parental involvement is not restricted to early intervention programs.

Wehlage (1989, National Dropout Prevention Center, 1990) (N.D.P.C.) and Inner City Initiatives (1990A) show that parental involvement is most successful when parents do the following:

1. Serve as teachers for their own or other's children (eg. serving as a tutor, helping with homework; assisting the teacher to prepare the materials.)

2. They provide support to the school (eg. joining the Parent-Teacher Association (P.T.A.) or other parent association serving as a school volunteer to chaperon field trips).

3. Parents participate in special school programs for parents (e.g., counselling for personal or family problems; training in parenting skills; instruction in English; utilizing health and social support services).

4. Parents become an advocate for their children or for groups supporting children with special needs (eg. meeting with principals and other administrators to speak on behalf of better schools; supporting organizations that protect the interests of children.)

5. Parents share in making decisions about children and the school (eg., creating individual educational plans for children; serving on a school advisory committee; making choices about which school the child will attend.)

Numerous researchers (Wehlage et al, 1989); N.D.P.C. (1990); Hahn, (1987); Inner City Initiatives, MAN (1990A); (King et al., 1989); (Lawton, et al., 1988), report that when parents are involved, the children achieve better in school and their self-esteem increases. The school also benefits through increases in teacher support and communication leading to common goals improves. The community benefits by improvement of the overall level of education and the development of a more highly trained workforce. The community as a result becomes a safer, cleaner and healthier place with a stronger economy. (Wehlage et al, 1989; Hahn, 1989; N.D.P.G., 1990)

Using Instructional Technologies

Computer Assisted instruction, especially such innovations as interactive video and video disks, allows for the individualized and self paced curriculum which is particularly helpful to at-risk students. Modern instructional technology offers many opportunities for schools and communities to help at-risk students. Computer-generated identification and tracking systems give administrators a quick, accurate way to monitor at-risk students and their progress through school and to develop flexible, effective alternative programs. Such systems can be adapted to provide teachers with diagnostic and prescriptive programs suited to the different needs and styles of students. Computerized systems are useful to counsellors for information and learner resource management necessary for academic and career guidance as well as coordination of support services for at-risk students.

Educators and researchers report that technology which is effectively utilized provides various benefits for at-risk students. Computer-assisted instruction, interactive television, telecommunication networks and satellite-transmitted programs can allow schools to provide a broader range of effective educational experiences. Schools can identify potential at-risk students earlier and begin appropriate intervention. Teachers can use computer databases of individual student profiles for diagnostic-prescriptive teaching approaches. Schools can provide hotlines to both give and receive information.

Learning Styles - Based-Instruction

Current research indicates that students learn best when they use their learning style characteristics advantageously (Carbo and Hodges, 1988). Students who understand and who are then are provided with opportunities to make use of their learning styles tend to feel valued, respected and empowered. A number of studies during the last decade have found that students' motivation and achievement increases when teaching methods match their leaning styles (Dunn, Beaudry and Klavas, 1989; Carbo, Dunn and Dunn, 1986; Wheeler, 1980).

Current research also indicates that many students who are at risk of not completing their education with an adequate level of skills, have styles that are at odds with styles required to succeed in traditional educational systems (Slavin and Madden, 1989). Accommodating the learning styles of at-risk students consistently has resulted in increased academic achievement, and improved incidence of discipline problems (Carbo and Hodges, 1988; Carbo, Dunn and Dunn, 1986; Wheeler, 1980).

Consequently, the more that teachers know about the learning styles of their students, the more effectively they can organize their classrooms and their teaching styles for different situations that respond to the individual needs of their students. Furthermore, teachers can be alert to situations in which students' learning styles limit their academic success.

Sufficient research is available regarding the effectiveness of teaching students through individual learning styles to support improvements in student learning effectiveness. Much of the emphasis of this research is on individualization. Individualization based on learning styles is not one to one teaching; it is a one to one relationship between a student and what he or she learns, working alone or in pairs or in a group. Rather than concentrating on a student's disabilities and learning problems, learning styles based instruction makes use of each student's strengths and preferences.

Slavin and Madden (1989) found that effective programs for at-risk students usually included continuous program models and certain forms of cooperative learning. Inner City Initiatives, Manitoba (1989) suggests that Learning styles strategies research data could be beneficial to continuous learning programs and cooperative learning programs.

Flexible Schedules and Alternative Programs

The traditional school program is not always appropriate for the student. Alternative academic and vocational programs, varied school environments, and flexible scheduling help schools meet the needs of students with delinquent behaviour, those who have withdrawn from school, those who lack fundamental basic skills, and/or those for whom the regular curriculum is boring or inappropriate. One key to success of alternative programs is the flexibility they offer for individualized programs for students. Alternatives can take the form of special courses or programs, schools within a school or separate schools such as "magnet" or vocational schools.

Research indicates that alternative schools have been successful with truant youth and/or students with some academic or behaviourial problems. Students' attendance improved and the percentage of school credits improved in comparison to the former schools attended. Research findings indicate that alternative schools work well for highly motivated former dropouts. Findings were mixed and inconsistent for other groups. Alternative schools that attract the most dropout prone youths also tend to have the highest rates of school leaving among alternative schools.

Despite improved attendance and academic performance, many dropouts and truants in alternative schools are still unlikely to graduate by the age of 21. The question still remains how schools could be more responsive to that dropout population that is most difficult to reach.

The most successful alternative schools were those that challenged students academically and that provided personal counselling and were staffed by caring adults. Such alternative schools share some of the characteristics documented in the effective schools literature. Effective schools were characterized by highly targeted services for a relatively homogeneous school population, strong principals, small school size, teachers who actively participate in counselling students, student involvement in school governance and classroom activity, opportunities for learning by doing, and clear standards rules and regulation.

Research findings also indicate that students in successful alternative programs/schools tend to become more committed to school and learning, their disruptive behaviour is reduced, their levels of self-esteem and confidence increased, their attendance improved and so did their academic achievement. Research findings were rather inconclusive and difficult to interpret regarding school achievement, since the alternative programs usually were characterized by a drastically modified academic program.

Researchers (N.D.P.C. 1990) tend to agree that alternative schools are often the best available option for both potential and actual dropouts, especially if the programs employ reasonable criteria for eligibility, teach real skills and accommodate working students. Once again, however, alternative schools in and of themselves are no guarantee of success for all at-risk adolescents (Hebard et al., 1986; Strother, 1986; Sherman, 1987; National Foundation for the Improvement of Education, 1986; Walz, 1987; Ruby, 1987; Nathan, 1987; McMullan, 1988).

School-Based Management

School-based management is one element in the current wave of educational reform that shows promise of bringing about the type of school restructuring necessary to provide for the needs of at-risk students. The fundamental purpose of school based management is to empower school staff, and, in some cases, parents to create conditions in schools that facilitate improvement, innovation and continuous professional development. The essence of this approach consists of school level autonomy and participatory decision making. Participatory program planning with accountability for results would require the establishing of new roles and relationships among the staff within the school and between the school and central office.

Studies on American school districts (N.D.P.C., 1990) that practice school based management essentials have found a range of positive effects from increased teacher satisfaction and professionalism to new arrangements and practices within schools. Despite a number of conceptual and practical accomplishments, however, a review of the literature clearly indicates that there is no consensus on what constitutes the ideal scheme for school-based management and that a number of issues, such as school accountability and rewards and incentives that communicate the values attached to new roles and responsibilities, require further elaboration and investigation.

School based management literature indicates schools are unlikely to change for the better without increased autonomy for school personnel. Research is reasonably clear that granting control over budgets and allowing policy setting authority is not enough. What appears to be essential is decision, leadership and support, which is primarily enhanced by the norms and the culture established by the leaders, especially superintendents and the school board.

Research has not fully addressed the following: relationship between parent choice and school based management; tension between school autonomy and collective bargaining and alternative models; issues regarding legal authority of the division versus the school; and incentives or rewards that communicate the value attached to new roles and responsibilities.

Shifting from traditional top-down management to school-based management can significantly alter the roles, functions and responsibilities of administrators and teaching staff. Research tends to confirm that to ensure such a practice is successful, the roles and responsibilities of all the participants must be clearly differentiated. Furthermore, school dimensions must provide participants with skills, knowledge and time to assume new roles and responsibilities. Many schools will need to redesign and implement managerial structures and processes to integrate teachers more fully into the decision making process. The process by which the above will occur requires specificity and further research. In order to maintain the trust of all participants, school staff/school based management requires a commitment to the process (Inner City Initiatives, Manitoba, 1990B).

Staff Development Programs

Many teachers, principals and counsellors are not prepared to teach and guide at-risk students; therefore continuous and relevant staff development must be provided. Helpful activities include training in identifying at-risk students, using special instructional strategies making shared decisions and developing or enhancing personal characteristics such as empathy and caring. Effective staff development must derive from identified needs of those involved and include field-based, experimental activities.

A review of the literature (Inner City Initiatives, Manitoba, 1990B) has highlighted the shortcomings of many efforts at staff development. Once only workshops, random programming, constant top-down policy-making and decision making, training without feedback, and formal courses unconnected to the experiences of teachers are largely seen as ineffective for the purpose of staff development.

It has become apparent that staff development is most effective when collaborative efforts between teachers and administrators are used to design programs and when teachers are given opportunity to practice new strategies and receive feedback on that practice. There is clear evidence that staff development does not guarantee a capable teaching staff (Ruben, 1987). It is interesting to note that in a study of the Anglophone teacher training institutions in Canada, Wideen (1985) along with Fullan (1987) and Hopkins (1987) found that institutions were relatively unconcerned about and relatively incapable of producing teachers who were reflective and critically aware of educational processes. This finding has implications for instructional and self-reflection approaches to staff development.

Despite a number of conceptual and practical accomplishments, the area of staff development still lacks good models of long term programs that produce systematic and continuous improvements. The review of staff development literature indicates, there is no consensus on what constitutes the ideal scheme for staff development. More work is needed in identifying specifically the differences in goals and focuses of the various approaches to staff development, as well as the intended and unintended consequences and the impact these approaches have on student learning (Inner City Initiatives, Winnipeg, Manitoba, 1990A).

Workforce Readiness and Career Counselling

Counselling services can be a significant factor in keeping students in school. Professional counselling for at-risk students individually and in groups can help them with personal problems as well as give them direction for academic and career choices. Service areas pertinent to at-risk students include advisement and counselling on courses of study, career and vocational planning, improvement of study skills, acquisition of socially acceptable behaviour, management of anxiety and increasing self confidence.

It has been recognized that there are critical periods in students' school careers when they need more attention through counselling services. Two such periods occur at the time of transition from elementary school to secondary school, as well as transition from school to work or post-secondary education. The literature documents the increase in school absence that follows these transitions.

Teacher advisement programs are another guidance and counselling method in secondary schools. A certain number of students are assigned to each teacher at the beginning of the school year. Each teacher is responsible for providing educational and career counselling to the students on a regularly scheduled basis.

Counselling efforts are also being directed toward students who leave school before graduating. Peer counselling can be used to assist at-risk students. Students identified as high risk are paired with students who are trained in peer counselling. The peer counsellor acts as a support and model for the student who is in danger of dropping out.

Counselling procedures have been established to assist students who have dropped out of school to re-enter the school system. These approaches include counselling to assist students to enrol in the most appropriate education program, and ongoing counselling as a support during the continuing educational process.

Counsellors can also coordinate orientation for pre-employment awareness training in life-coping and work readiness skills, and entry into the job market for at-risk students. Counsellors can be the bridge between the student and out of school support services.

Research data is lacking to determine the effectiveness of counselling programs in meeting the above objectives. There appears to be consensus among educators that the above activities are paramount in assisting at risk students. Studies of counselling effectiveness are generally positive but degrees of effectiveness vary from situation to situation and from population to population. Further research is required to determine the crucial elements of a counsellor contribution to prevent at-risk students from leaving school prematurely.

Research indicates that guidance and counselling services assist at-risk students to: more effectively cope with personal problems that might otherwise cause them to fail in school or dropout; become more actively involved in social life at school; make more appropriate choices about course offerings, employment opportunities, and future careers; and take advantage of out of school support they need from social agencies (N.D.P.C., 1990; Hahn, 1987; Hobbs and Associates Ltd., 1989).

Community and Business Collaboration

The quality of life in a community is directly related to the quality of its education (N.D.P.C., 1990). The private sector also has a stake in education because its workforce comes from the ranks of those who graduate and those who don't. Problems experienced by at-risk youth are too complicated for the school to handle alone. A total community effort with involvement of school, business, community agencies, civic organizations, private groups, and parents is highly desirable. School and business collaboratives have taken shape in a variety of communities with a great diversity of approaches. Collaborates may be involved in varying degrees and in many ways. Research findings (PIOR, 1990; N.D.P.C., 1990; King et al., 1988) report that school/business community partnerships can assist schools in lowering dropout rates, improve attendance, improve basic skills performance (reading, language and math) as well as assist in the acquisition of entry level job skills. Some studies report success in all of the above and some on specific of variables. There is general agreement that partnerships can open lines of communication between school, business and community leaders for developing common long range goals. Partnerships can provide needed resources for schools in meeting the needs of at-risk students. Collaboration can strengthen the content of the school curriculum and improve instruction. In general terms partnerships can improve the economic conditions of the community by providing a more educated workforce.

Research shows when the school/community/business partnerships are well coordinated, the results can be very beneficial to ease the transition from school to work. School and business must share the same goals and be committed to their respective roles. A program based only on employment and career training cannot be successful for this special group of youth who are at-risk of leaving school early (PIOR, 1990). Programmes have to be targeted to at-risk students and not be selection processes for businesses to get the best employees. This apparently has often been the result of many such programmes that were officially designed or funded for at-risk youth. Job experiences can be a solution for a proportion of potential dropouts but can only be a partial solution when considering the overall problems of high school dropouts (PIOR, 1990).

The following list is a compilation of certain school activities, practices and emphasis that have been positively associated with improvement in school retention and reduction in school dropouts:

- promotion of daily school attendance;
- encouragement of parental participation in school learning activities;
- strong and consistent school leadership;
- clearly stated and widely disseminated classroom and school goals;
- help for each student to establish and progress toward meaningful career goals;

- placement of a high priority on school resources for the early elementary grades;
- insurance that students stay at a grade level appropriate to age;
- interfacing school and community resources;
- provision of a caring and mentoring environment for all students;
- assistance for students to develop effective learning and study skills;
- establishment of a school climate where achievement is respected and rewarded;
- recognizing and acting upon the interrelatedness of student self-esteem and successful school performance;
- direct dropout prevention efforts at younger students who are potential dropouts;
- establish linkages between different levels of schooling to facilitate student transition;
- keep dropout prevention programs small in size;
- focus programs on basic skills;
- provide students with regular feedback about progress;
- link job training to long term employment;
- use a wide range of instructional techniques;
- meet the broad range of disadvantaged students' needs;
- incorporate sustained adult contact;
- establish school-community partnerships;
- build economic incentive policies;
- provide counsellors to assist students with personal/educational/career issues;

(Druian, 1986; Ruby, 1987; Walz, 1987; Peck et al., 1987; Peck & Eberhard, 1988; Wehlage et al., 1989; Inner City Initiatives, 1990A; PIOR, 1990; Quirouette et al., 1990; N.D.P.C., 1990).

VII. CHOOSING TOPICS OR STRATEGIES FOR FUTURE RESEARCH

Defining a List of Strategies

The first step taken in this project was to develop a lengthy list of possible strategies to reduce school drop-out rates in Canada. That list formed part of a questionnaire which has circulated to Departments of Education and Departments of Training, to a convenient sample consisting of all school districts in British Columbia and to approximately 100 representatives of community, business, literacy and education organizations and individuals. The results of that survey are reported herein. The responses are tabulated in accordance with a typology of strategies developed for the project. The departmental (dept) responses were 25 in number, with no responses from Québec included. Thirty out of the 75 school districts (sd) responded to our survey. Individual and organizational (o) responses numbered 36. The numerical value reported under "Respondent Interest" is an average of responses received. Respondents were asked to rate the importance of the strategy from 1-10, 10 being the highest rating. The references to "None, Few, Many, or All" are estimates of the use being made of that strategy in Canadian schools. These estimates are made on the basis of a compilation of Department of Education responses to that part of the questionnaire.

Many comments were made by the respondents to the effect that while they appreciated the value of the lengthy list of specific strategies, they felt it was important that several strategies be used simultaneously in order to prevent school drop-outs.

Reviewing A List of Strategies Seen as Effective by Researchers

The review of the research literature reported the following strategies were reported as being most effective in school retention. These recommendations happen to coincide with a similar list developed by the National Drop-Out Prevention Centre at Clemson University, South Carolina.

a) Increasing and improving parental involvement

b) Introducing quality kindergarten programs

c) Providing comprehensive support in reading and mathematics

d) Mentoring programs

e) Individual instruction for at-risk students

f) Use of teachers as mentors

g) Work readiness programs

h) Tutoring programs

i) Alternative programs and flexible scheduling

j) School-based management/effective school programs

k) Staff development programs

l) Collaborative school-based community programs

Reviewing the Responses from Provincial/Territorial Departments

A third component of the consultation was a series of meetings held with officials of Departments of Education and Departments of Training. Interviews were held with all provinces and territories. Québec declined to participate in the consultation. The following strategies were identified as being of interest to officials at the policy and program levels in those departments.

a) Curriculum/school reform in secondary schools (2 jurisdictions)

b) School-business partnerships (2 jurisdictions)

c) Home/community/school liaison or support programs for native or ethno-cultural families (4 jurisdictions)

d) Truancy/attendance monitoring programs (2 jurisdictions)

e) Federally-funded work orientation workshops, with or without school follow-up activities (3 jurisdictions)

f) Early intervention programs - Kindergarten or Pre-Kindergarten (4 jurisdictions)

g) Community/agency involvement in delivering support sources within schools (3 jurisdictions)

h) Effective schools/school-based management (2 jurisdictions)

i) Tutoring Programs (1 jurisdiction)

j) Mentoring programs (1 jurisdiction)

k) Comprehensive, collaborative, multiple intervention, community mobilization programs (4 jurisdictions)

l) In-school climate (1 jurisdiction)

m) Community-based alternative schools (1 jurisdiction)

n) School-based alternative programs for at-risk students (1 jurisdiction)

o) Individualized programs for at-risk students, transient students (1 jurisdiction)

PREVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
Instructional Strategies		Dept.	SD	O
Broad, general education to heterogeneous classes	Many Schools	6.83	7.28	7.33
Streaming of students	Few Schools	6.30	5.39	9.50
Specific goals for student retention	Few-Many Schools	7.30	6.72	7.86
Specific remediation and support to elementary schools	Few-Many Schools	8.70	8.29	9.67
More emphasis on self-esteem	Few-Many Schools	8.30	8.69	9.00
More emphasis on experiential learning	Varies Few-Many-All Schools	8.20	8.24	7.29
More emphasis on life-skills, decision making	Varies Few-Many-All Schools	9.00	8.06	9.43
Greater emphasis on "mastery learning"	Few Schools	7.82	7.47	9.29
Computer assisted learning	NA	NA	NA	NA
Learning styles based instruction	NA	NA	NA	NA
Greater use of career/self awareness in elementary schools	Few Schools	7.00	6.67	7.13
More emphasis on non-university bound students	Few Schools	8.20	7.47	8.43
More emphasis on transition from school to work	Few Schools	8.20	7.88	9.86
Mandatory, core instruction in personal, social, career development	Varies Few-Many-All Schools	7.70	8.50	7.50
Use of block scheduling.	Few Schools	6.66	6.56	6.71
Specific prevention programs on drugs, alcohol, pregnancy	Varies Few-Many-All Schools	8.18	7.20	8.33
Awareness sessions for teachers	Few-Many Schools	8.4	7.67	9.67
Teaching Learning Materials	NA	NA	NA	NA

PREVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Support Services Strategies				
Homework hotline	No-Few Schools	8.00	6.27	9.17
Problems hotline	No Schools	8.22	7.00	9.85
Late busing	No-Few Schools	6.78	6.10	6.80
Use of student tracking system	Varies-Either No Schools or All Schools	6.00	6.54	7.57
Teacher training to early identification	No-Few Schools	8.42	7.62	8.86
Regular review of student attendance by teachers	Many Schools	8.27	8.13	8.71
Regular review of student attendance by principal	Few-Many Schools	7.09	8.07	7.43
Review of annual reports, student profiles by school staff	No-Few Schools	7.82	7.15	7.86
Review of annual reports, student drop-out profiles by school district	No-Few Schools	7.64	6.08	8.86
Teacher advisors for all students	Few Schools	8.70	7.07	8.80
Accessible counselling services for students	Few Schools	8.91	7.71	9.67
Elementary counselling services	Few Schools	8.30	7.44	8.67
Specific support and procedure re: transition from elementary to secondary school	Few Schools	7.25	8.35	9.33

PREVENTION

Strategy To Reduce Drop-out Rate	**Estimated Current Level of use of Strategy**	**Respondent Interest in Strategy**		
		Dept.	**SD**	**O**

In-School Climate Strategies

School-climate improvement program				
Specific materials, projects	Few Schools	8.00	8.36	8.00
Use of "Effective School" research/school based management	Few-Many Schools	7.50	8.50	8.20
School leadership teams	Few-Many Schools	7.30	7.77	5.67
Active encouragement of students re: extracurricular activities	Varies	7.00	8.00	7.20
Review school and class discipline policies	Varies	8.56	8.14	9.20
Use of smaller administrative units/teams in large secondary schools	Few Schools		7.88	8.83
Block scheduling to increase flexibility for special events	Few Schools		6.56	6.71
Gender-specific interventions	Few Schools	7.00	6.58	6.50
Greater use of "middle Schools"	Few Schools	5.30	6.25	8.25
Contracting-out of school management to private sector	NA	NA	NA	NA

PREVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Family, Community Support Strategies				
Pre-School Programs				
Head Start programs	Varies	7.70	7.58	8.00
Awareness sessions for parents	Few-Many Schools	8.00	7.20	9.17
Awareness sessions for local businesses	Few Schools	7.80	5.93	8.80
Special events/forums	No-Few Schools	8.00	5.69	7.20
Special in-school activities	Few-Many Schools	6.80	5.73	7.50
Increased written communications to parents	Many Schools	7.30	7.13	7.60
More open houses	Few Schools	7.30	6.71	7.80
More parent-teacher workshops	Few Schools	8.20	6.87	8.80
More support to parent advisory committee	Few Schools	8.56	8.00	8.00
Use of effective parenting courses	Few Schools	7.60	8.00	7.67
Specific information sessions for parents	Varies	8.30	7.44	8.83
Assessment of local employment patterns	No-Few Schools	7.25	6.30	6.75
Public Awareness Programs				
Radio, TV, print and advertizing	No-Few Schools	7.45	6.27	7.57
Buttons, pamphlets, etc.	Varies	6.82	5.80	7.00
Coordinated campaigns	No-Few Schools	7.09	5.80	8.40
Public Policy				
Federal UIC	Varies	8.00	7.75	8.67
Departments of Education				
-specific goals for retention	Varies	8.00	7.75	8.67
-a coordinator	Varies	9.00	6.90	9.40
-specific DO programs	Few Schools	9.00	7.82	9.80
-specific funding	Varies	8.56	7.70	9.80
-specific student support programs	Few Schools	8.67	7.70	10.0
School Boards				
-written policy statements	Varies	9.44	8.00	9.0
-assigned personnel	Varies	8.78	7.55	9.25
-specific DO prevention programs	Few Schools	9.22	9.00	7.75
-specific student support programs	Varies	9.33	9.10	9.75
Employment, youth, health and social services agencies				
-written policy statement	Don't Know	7.67	6.78	9.20

INTERVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	**SD**	**O**
Instructional Strategies				
Flexible timetabling for at-risk students	Few Schools	5.33	8.06	7.50
Greater use of professional education programs	Many Schools	6.88	6.25	8.00
Greater use of career exploration in secondary schools	Few-Many Schools	8.82	8.12	9.57
Greater use of vocational education programs	Few Schools	6.60	7.54	8.17
Alternative Programs				
Alternative programs for natives	Varies	6.22	6.79	6.50
Alternative programs for ethnic, racial, cultural minorities	No-Few Schools	6.57	5.00	6.00
Alternative programs for disadvantaged	Few Schools	7.11	7.40	6.80
Alternative programs for pregnant students	Few Schools	7.60	7.92	8.00
Alternative programs for handicapped students	Few Schools	7.67	7.23	8.40
Off school site programs	No-Few Schools	5.75	7.50	5.00
Alternative Schools				
"Wilderness" schools	No Schools	4.89	5.89	6.20
Fine Arts schools	No Schools	4.89	5.63	6.00
Vocational/Technical schools	No-Few Schools	7.20	7.33	8.33
Storefront schools	No Schools	6.56	6.33	7.17

INTERVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Support Services Strategies				
Inter-Disciplinary, Inter-Agency coordination				
Joint in-service sessions	Few Schools	8.20	7.29	9.17
Joint case management	Few Schools	7.80	7.00	9.00
Involvement of managerial personnel	Varies	7.78	7.09	7.67
Written protocols	No-Few Schools	7.89	7.27	7.40
Municipal Programs				
In-kind support & subsidies	No-Few Schools	7.22	6.70	9.00
Child care, support services for young parents	Few Schools	8.44	7.00	7.80
Peer tutoring	Few Schools	7.40	7.88	7.83
Matching older students with younger, at-risk students	Few Schools	7.60	7.31	7.00
Use of group counselling sessions	Few Schools	7.80	6.79	6.60
Use of alternative classes in regular school day	NA	NA	NA	NA
In-School personnel mentoring	Few Schools	8.80	7.70	9.17
Use of para-professionals to tutor at risk students	Few Schools	7.83	7.79	9.00
Community volunteers mentoring at-risk students	Few Schools	8.60	7.08	8.80
School counsellors to do initial personal counselling	Few-Many Schools	7.78	8.13	8.17
Group counselling for students	Few Schools	8.22	7.17	7.50
Personal life management programs	Few Schools	8.00	7.73	9.00
Specific monitoring, reporting of student progress	Few Schools	7.90	7.87	9.00
Specific procedures for truant or at-risk students	Many Schools	8.33	7.93	9.25
Review of school suspension policies	Few-Many Schools	8.67	8.92	9.40
Regular meetings elementary-secondary on at-risk students	Few-Many Schools	9.10	8.33	9.17
Regular meetings (Secondary-Post-Secondary)	Few Schools	8.60	8.46	9.00

INTERVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
In-School Climate Strategies				
Teacher in-service to increase awareness	Few-Many Schools		7.67	9.67
School administrator in-service on specialized procedures and support services	NA	NA	NA	NA
School guidance counsellor in-service	NA	NA	NA	NA
Use of "vocational skills" competitions	No-Few Schools	6.38	5.60	6.80
Use of "technical skills" competitions	Few-Many Schools	7.00	6.31	8.18

INTERVENTION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O

Family Community Support Stratagies

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Dept.	SD	O
Use of school district drop-out prevention committees	No-Few Schools	8.00	7.67	7.60
Use of school drop-out prevention committees	Few Schools	8.56	6.80	8.80
Specific truancy prevention program	Few-Many Schools	7.82	7.67	8.86
Teacher training in parent interview for at-risk students	No-Few Schools	6.88	6.92	9.17
Home visits for truant students	Few Schools	7.55	7.75	6.86
Increased number of report cards	Few Schools	7.00	6.15	5.80
Increased number of parent-teacher interviews	Few-Many Schools	8.00	6.80	8.80
Community-Based Personal Counselling				
Inter-agency protocols	Few Schools	8.80	8.18	8.40
counselling of parents of at-risk students	Few Schools	8.73	7.18	9.67
Home-School Liaison				
Community-based para-professionals	Few Schools	8.22	6.50	7.60
Culturally appropriate personnel	Few-Many Schools	7.89	7.08	9.50
Support to Disadvantaged Families				
School lunch programs	Few Schools	8.88	6.40	9.40
Latch-key programs	Few Schools	8.44	7.10	9.40
Upgrading for parents	Varies	8.67	7.67	7.83
Voluntary organizations				
-specific events	Few Schools	5.88	5.75	6.67
-locate, screen, train volunteer mentors	No Schools	8.25	6.00	8.00
-locate, screen train volunteer tutors	Varies	8.63	6.36	8.83
-fundraising	Varies	5.00	5.08	7.00
Special Activities & Projects				
Presentations by former drop-outs	Few Schools	7.60	6.50	8.33
Use of community volunteers for tutoring	Few Schools	7.60	6.23	8.50
Use of service clubs for fundraising	Few Schools	5.33	6.23	6.17
Outreach to local employers re: hiring practices	Few Schools	7.25	7.57	8.00

TRANSITION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Instructional Strategies				
Use of job shadowing programs	Few Schools	7.9	7.75	8.83
Use of cooperative education programs	Few Schools	8.18	7.80	8.83
Summer WOW programs	Few Schools	7.50	6.58	7.50
Year round WOW programs	Few Schools	7.60	6.79	8.50
Adapted WOW programs for specific target groups	Few Schools	7.60	6.86	8.10
Business coop schools	No Schools	6.50	6.33	7.60
Alternative programs for students working part-time	No Schools	5.11	7.46	6.50

TRANSITION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	Ω
Support Services Strategies				
Career information centres in schools	Few Schools	7.55	7.56	8.13
Career information centres in CBC's	Few Schools	5.45	5.00	6.75
Career information centres in colleges/continuing education centre	Few Schools	6.60	6.11	8.33
Career information centre in community locations	No-Few Schools	6.20	4.63	6.60
Computerized career information systems	Few-Many Schools	6.27	6.73	8.00
Use of local career/employment data	Few Schools	6.45	6.00	8.00
Interactive videos in career counselling	No Schools	6.70	5.50	8.00
Individualized student assessments	Few Schools	8.00	6.92	8.86

TRANSITION

Strategy To Reduce Drop-out Rate	**Estimated Current Level of use of Strategy**	**Respondent Interest in Strategy**		
		Dept.	**SD**	**O**

In-School Climate Strategies

TRANSITION

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Family Community Support Strategies				
School-Business Collaboration				
Adopt-A-School programs	No-Few Schools	7.89	6.78	7.75
School-business partnership programs	Few Schools	7.80	7.00	8.83
Collaboration with unions	Varies	9.00	5.50	9.00
Outreach to local employers re: part-time employees	Varies	7.10	7.36	9.33

RE-ENTRY

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Instructional Strategies				
Alternative Schools				
"Wilderness" schools	No Schools	4.89	5.89	6.20
Fine Arts schools	No Schools	4.89	5.63	6.00
Vocational/Technical schools	No-Few Schools	7.20	7.33	8.33
Storefront schools	No Schools	6.56	6.33	7.17
Literacy upgrading programs	NA	NA	NA	NA
Individualized study				

RE-ENTRY

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Support Services Strategies				
Personal, automatic contact of drop-outs	Varies	8.11	7.64	8.83
Flexible re-entry procedures for returning students	No-Few Schools		8.08	8.67
Job re-entry programs	No-Few Schools	7.89	6.85	8.83
Financial incentives	No-Few Schools	8.00	7.40	7.43
Age segregated classes	Varies-No Schools-Many Schools	7.40	5.60	5.57

RE-ENTRY

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
In-School Climate Strategies				
Visits by drop-outs encouraged	Varies	7.75	7.27	8.17

RE-ENTRY

Strategy To Reduce Drop-out Rate	Estimated Current Level of use of Strategy	Respondent Interest in Strategy		
		Dept.	SD	O
Family, Community Support Strategies				

Suggestions Made to the National Invitational Workshop

Based on the results of the research review and the national consultations, a set of suggestions was made to the February 7-9th national invitational workshop, as to which drop-out prevention strategies should be considered for future research.

Some Criteria for Selecting Strategies for Further Research

There are some common sense criteria that were used in selecting different strategies for evaluation of their effectiveness. This criteria included:

1. There should be some evidence, based on available studies, that indicates that the strategy is successful in reducing school drop-out rates. That evidence is likely to be several descriptive studies of individual programs.

2. The strategies chosen for evaluation should not rely upon significant infusions of additional financial or human resources. For the foreseeable future, it is not likely that such additional resources will be readily available and it is preferable, in our view, to evaluate strategies that are likely to be implemented if they are proven to be effective.

3. The strategies should recognize the realities of existing mandates and structures of current agencies, institutions, government departments and professions. It is not to say that such publicly funded institutions or agencies cannot alter their structures, programs or services but a strategy chosen for evaluation should not rely upon basic structural change for its eventual implementation.

4. Strategies selected for evaluation should seek to maximize the use of current resources through tactics such as changing program goals or objectives, improved coordination of services, better information exchange, modified professional practice, more focussed delivery of programs or services on introduction of specific support services or procedures. In other words, the strategy to be tested should foresee a realistic possibility for implementation.

5. Such strategies should also be seen to be credible by decision-makers in government, school boards, employment centres and schools, insofar as the eventual implementation of the strategy will be dependent upon such decisions.

6. Strategies selected for evaluation research should also be comprehensive in nature. Respondents in the national consultation told us often that, no single strategy will reduce school drop-out rates; it requires a series of strategies, programs and services which respond to the particular factors, circumstances and needs of the students. Therefore, future research should, in our view, either take into account a range of factors or strategies by either using them in the project design or by controlling for their impact in the research design.

7. Strategies selected for evaluation should also take into account the fact that, in the phenomenon of early school leaving, the attitudes and behaviour of people are critical. The actions of a single teacher, mentor or counsellor can have significant effect. As well, the experiences of individual students, during the time that the strategy is being evaluated, can

significantly influence their decision to leave school. Therefore, the descriptive data collected and the need for intensive training for participants in the study will likely be immense in order to avoid the attribution difficulties associated with research on human behaviour.

Strategies Suggested for Further Research

Prevention Strategies

1. Increasing and improving parental involvement.

   This strategy was supported in the research literature and was rated as important by respondents from the community, agencies and schools. No specific mention was made by departmental officials but effective schools/school-based management programs (which were mentioned) include parent components.

2. Early Intervention Programs

   This strategy was supported in the research literature, was mentioned by four provinces/territories and was highly rated in the questionnaire results.

3. School-based management/effective schools strategies

   This strategy was supported in the research literature and was mentioned by two provinces/territories. It was not listed as a specific in the questionnaire but questions relating to the improvements of instructional methodologies and in-school climate were very highly rated.

4. Staff Development Programs

   This strategy was supported in the research literature and by responses to the questionnaire. Although not specifically mentioned in discussions with departmental officials, staff development is implicit in the development of in-school climate programs.

5. Curriculum/school reform initiatives

   Although not specifically evaluated in the literature, most analyses/reports concluded with a call for school reform. Two provinces/territories expressed interest and questions relating to the general quality of education programs solicited high ratings of importance.

Intervention Strategies

1. Comprehensive, collaborative school-community programs.

   This approach was highly recommended in the research literature, was mentioned by four provinces/territories and was the subject of many comments in the questionnaire.

2. Introduction, improvement of community involvement/support services within schools through concepts such as community schools or "cities in schools" initiatives.

This type of strategy was supported in the research literature, was mentioned by two provinces/territories and was supported by questionnaire results.

4. Home/community/school programs for native, ethno-cultural minority students.

   This type of strategy was supported in the research literature, was mentioned by four provinces/territories and was highly rated in questionnaire results.

5. Truancy Monitoring Programs

   This type of strategy was mentioned by 2 provinces, was supported in the literature and was seen to be very important by questionnaire respondents.

6. Alternative Programs

   This strategy was supported in the research literature, was mentioned (in several types, ie. native, high-risk, migratory and community-based) by four provinces/territories and were rated well in questionnaire results.

7. Mentoring Programs

   This type of strategy was supported in the literature, was of interest to one province and was very highly regarded by questionnaire respondents.

8. In-School Climate Improvement Programs

   The research supports this type of strategy, one province expressed interest and respondents rated it as important.

Transition Strategies

1. Work Readiness/Orientation Programs

   This strategy is supported in the research literature, was mentioned by three provinces/territories as was highly rated in questionnaire results.

2. School Business Partnerships

   This type of strategy was well supported in the research, was mentioned by two province/ territories and was highly rated in questionnaire results.

Re-Entry Strategies

1.. Alternative Schools/Individualized Instruction

   This type of flexible re-entry support was supported by the research literature. Respondents rated such programs as very important.

Results of the National Invitational Workshop

The notes from the Working Group Sessions held at the workshop are reproduced in Appendix One.

There was a significant challenge to be overcome at the workshop in regards to the amount of material to be discussed and the need to identify a lot of strategies for consideration in future research. Experience in the pre-conference consultations indicated that it was difficult for broadly-based groups to proceed all the way from first encountering each other, exchanging views about the problem and key issues, selecting areas of mutual interest and then determining research needs. In retrospect, the decision to eliminate a half-day from the workshop program was a mistake. Some groups only reached the stage of identifying an issue for investigation (indicated by "Q" in Table 1) without having the time to describe an intervention (indicated by "I") they would like to have evaluated. In some cases, participants were only asking for data to be compiled (D).

As well, the program divided participants into four groups: Prevention, Intervention, Transition/Re-Entry, and Non-Traditional. There was some overlap among the groups which was unavoidable.

There was no attempt made to establish priorities within the list of strategies developed by the groups, nor within the list produced by all participants.

Many workshops designed to identify research needs do not use a consensus-building process as a means to eliminate the biases of the participants. "Shopping lists" which reflect those biases are often the result of such workshops. Although it is impossible to eliminate all of such biases, it is satisfying to note that all of the working groups at the workshop clearly went through the consensus development process. Each group agreed on the problem, developed a vision statement or conceptual framework, listed alternatives and then made choices. The lists from each of the groups is summarized below.

There was one other aspect of the workshop which prompted comment from some of the participants. There was a lack of native and labour participation. Also not all of the business people invited chose to attend. As well, the government of Québec did not send any participants.

Assessment of the Working Group Discussions

The discussions were reported to be productive and stimulating by facilitators and participants. A request that there be further communication about the follow-up to the workshop was made at the concluding plenary session.

Some of the workshop groups progressed further than others. The "Prevention Group" was more conceptual in approach. Their recommendations call for more qualitative research into long-term prevention measures.

The "Intervention Group" appeared to be most interested in the issue of in-school climate. Apparently this group was almost deterred from its task by a digression. Therefore, it appears that the last items on their list of suggestions may not have been fully discussed.

The "Transition/Re-Entry Group" appeared to have a huge list of potential issues in the early stages of discussion but when they regrouped the issued they found considerable consensus.

The "Non-Traditional Group" naturally had more significant, probing questions to ask - mostly stemming from the issue of systemic change.

The list of issues identified were:

Key:

Q = Qualitative Research
I = Intervention Suggested for Evaluation
D = Data Required for Dissemination
*** = Group emphasized this point**

Prevention Group

1. Critical thinking skills (Q)
2. Parent-child centres (I)
3. Junior kindergartens, kindergartens (I)
4. Parent involvement (Q)
5. Language intensive schools (I)
6. Gender-specific strategies (Q)
7. Summer programs (I)
8. Alternative scheduling (I)
9. Age of entry (I)

*10. In-school climate/"model" (effective) schools (I)

11. Barriers to effective schools (Q)

Intervention Group

1. In-school climate (I)
2. Multiple strategies (I)
3. Staff training and development (I)
4. Learning styles of at-risk students (I)
5. Computer assisted learning & at-risk students (I)
6. Multi-agency interventions (I)
7. School-site delivery of services (I)
8. Comparative study of guidance/counselling programs (I)
9. Motivations, perceptions of drop-out (Q)
10. Mentorship (I)
11. Incentives (I)
12. Attendance/truancy programs (I)
13. Tutoring (I)
14. Lifestyles programs (I)
15. Assessment of START (CEIC) funded projects (D)
16. Tracking systems across Canada (D)
17. Secondary school reform in BC (I)
18. Native programs/interventions (I)

Transition/Re-Entry Group

A. Partnership-based Approaches to (eg. Georgina School, Toronto)

1. Transition support within education system (I)
2. In-service training (I)
3. Evaluation of "Umbrella Organization" programs eg. YES Canada (I)
4. Social/financial incentives (I)
5. Family contact and involvement programs (I)
6. Business partnerships (I) (need to choose which types prior to designing evaluation)

B. Employment-Preparation Programs

7. Traditional secondary school counselling (I)
8. Career exploration programs (I)
9. Integrated career education programs (I)
10. Alternate paid work/study programs (I)

C. Alternative Programs

11. Individualized service programs (I)

Non-Traditional Groups

A. Research

1. Focus on those most at risk, particularly native students (Q)
2. Investigate issue of "academic bias" (Q)
3. Human development/career development programs (I)

"Demonstration" Schools in:

4. Learning styles-based programs (I)
5. Building from successful D.O.. prevention programs

Birds Hill, Manitoba

Reston School, New Brunswick

Winnipeg, Manitoba

River East District, Manitoba

Alternative Schools

*Community-mobilization - Georgina School, Toronto

Career Exploration/WOW Programs

The working groups at the workshop also identified several characteristics of the type of research that would be most useful to them:

1. Priority should be given to investigations dealing with students who are most at-risk, particularly aboriginal students.
2. The school is the preferred level of research as it is local school-based action which is most important.
3. Collaborative partnerships should be encouraged in the development of research project proposals. Investigations and future research should examine strategies based on collaborative approaches.

4.The research should be applied in nature. There appears to be enough qualitative, descriptive investigations of the problem. There should not be pure research attempting to try something radically new. Evidence of current approaches is required to persuade policy-makers to support broader implementation of such programs.

The chart appearing in the concluding section of this report describes all of the different responses collected from the various consultations and research. A pattern does emerge which indicates several items for future research are of common interest to respondents in the consultation, researchers and workshop participants.

VIII. Recommendations for Future Research

This concluding chapter attempts to summarize all of the data gathered together as part of this project.

It may be useful to recall the first instructions received as part of the mandate for the project. The task was to identify a short list of school drop-out prevention strategies which were:

- **effective**: in other words, the strategies suggested were to have some evidence from previous studies or experience that they would be effective in reducing school drop-out rates.
- **feasible**: the strategies were not to require vast infusions of new financial or human resources and it should be possible for schools and communities to implement them reasonably quickly and easily
- **acceptable**: the strategies were to be perceived to be acceptable by practitioners and policy-makers.

A Synthesis Leads to A Consensus

The following chart provides an overview of the various data that was collected as part of the project. The list of strategies on the far left-hand side of the page represent the interventions that were deemed to be of interest by the participants in the process or by the research reviewed. Each of the other columns in the draft summarizes data from the different parts of the project.

There is a pattern which emerges in the chart as one tracks the responses from the questionnaire, from the review of the research, from the responses of departmental officials and from the discussions at the National Invitational workshop.

One example is used to illustrate how this tracking of responses is possible.

Increased parental involvement has been reported as being used in a few schools across Canada as a strategy to prevent school drop-outs. Interest from respondents to the questionnaire in this strategy was moderately high. The research review indicates that there is evidence that increasing parental involvement will be effective. The Prevention Group at the national workshop identified parent involvement as a topic which should be investigated. The Transition/Re-Entry Group wanted a study on an intervention testing parental involvement.

The pattern is clear. Parental involvement should be evaluated as a means to reduce school drop-out rates.

Strategies Considered	Questionnaire		Research Review	Dept Responses	Recommendations to Workshop	Prevention Group	Intervention Group	Transition/Re-entry Group	Non-Traditional Group
	Use	Rating							
Prevention Strategies									
Parental Involvement	Few	Moderate	Seen as effective		Recommended	-Parent involvement (Q)		Partnerships to promote family contact & involvement (I)	
Quality Kindergarten., Pre-Kindergarten (Early Intervention)	Varies	Moderate (Pre-school only)	Seen as effective	High Interest	Recommended	-Junior Kindergarten (I) -Age of entry (I)			
Remediation - Reading & Math	Varies Few-Many	High	Seen as effective		Recommended	-Language intensive schools (I) -Summer programs (I)			
School Based Mgmt/"Effective Schools"	Varies Few-Many	High	Seen as effective	Moderate Interest	Recommended	-"Model" schools/school climate (I) -Barriers to effective schools (Q)			-Demonstration -schools (Q) components (eg. Mission empowering personnel, etc.)
Schools using business management techniques	NA	NA							Demonstration -schools using business management techniques
Schools using successful drop-out strategies	NA	NA							Demonstration -schools using successful drop-out management strategies
Staff development & training	Few	High	Seen as effective		Recommended		Staff training & development	Partnership approval to in-service	
Curriculum/school reform	Few	High		Moderate interest	Recommended		Secondary school reform in B.C. (I)		-Systemic change -Business models (Q) -Successful models (Q) -Expressive of academic bias (Q)
Home school support/contact programs	Few	High		High interest	Recommended for Native & ethonocultural minorities	Parent-child Centres (I)			

Strategies Considered	Questionnaire Use	Rating	Research Review	Dept Responses	Recommendations to Workshop	Prevention Group	Intervention Group	Transition/Re-entry Group	Non-Traditional Group
*Policy impact/mobilization, multiple interventions, comprehensive, models	Few	Moderate		High interest	Recommended		-Multiple strategy intervention (I)	-Georgina model in Toronto	-Community mobilization models (Georgina, Toronto)
Critical thinking skills	Varies	High				-Critical thinking skills			
Gender-specific strategies	Few	Moderate				-Gender-specific strategies (Q)			
Age of Entry	NA	NA							
"Tracking"	Varies (None or all)	Moderate							
Interventions Strategies									
Flexible Scheduling	Few	Moderate	Seen as effective			-Alternative scheduling (I)			
Alternative Programs	Few	Moderate	Seen as effective		Recommended				
Human developement/career development programs	Varies	Moderate					-Lifeskills programs (I)		-Human development/career development programs (I)
Focus on most at risk, particularly aboriginal students	NA	NA					-Programs for aboriginal students		-Focus on most at risk, particularly aboriginals (Q)
Learning styles based instruction	NA	NA					-Learning styles based instruction for at risk students (I)		-Learning styles based instruction (I)
Mentoring	Few	High	Seen as effective	Some interest	Recommended		-Mentorshhip (I)		
Teachers as mentors	Few	High	Seen as effective						
Individualized service plans	Few	High	Seen as effective						
Tutoring	Few	Moderate-High	Seen as effective	Some interest	Recommended		-Tutoring programs (I)		
Truancy, attendance programs	Many	High		Moderate interest	Recommended		-Attendance/truancy programs (I)		

Strategies Considered	Questionnaire		Research Review	Dept Responses	Recommendations to Workshop	Prevention Group	Intervention Group	Transition/Re-entry Group	Non-Traditional Group
	Use	Rating							
Multiple agency, interventions	Few	High		High interest	Recommended				
In-school climate	Few	High		Some interest	Recommended		-In-school climate programs(I)		
Support services delivered at the school site	NA	NA					-Support services delivered at school site (I)		
Guidance programs including comparative studies	Few	Moderate					-Comparative studies of counselling programs (I)	-Effectiveness of traditional secondary school guidance programs in promoting school to work transition (I)	
	NA	NA							
Motivations, perceptions of drop-outs							-Investiage motivations, perceptions of drop-outs (Q)		
Social, financial incentives	No-few (Financial only)	Moderate					-Financial incentives (I)	-Partnerships to offer social, financial incentives (I)	
Community coalition programs	NA	NA						-Community based coalition programs	
START projects (CEIC regionally funded projects)	NA	NA					-Assess START projects (D)		
Computer assisted instruction for at risk students	NA	NA					-Computer assisted instruction for at risk students (I)		
Support for transition	Few	High					-Partnerships to support transition within school system (elem-sec, sec-post-sec (I)		

Strategies Considered	Questionnaire Use	Questionnaire Rating	Research Review	Dept Responses	Recommendations to Workshop	Prevention Group	Intervention Group	Transition/Re-entry Group	Non-Traditional Group
Transition Strategies									
Work preparation readiness programs	Few	High	Seen as effective		Recommended				
Work orientation workshops	Few	Moderate		High interest	Recommended				
School business partnerships	Few	High	Seen as effective	Moderate interest	Recommended			-School business partnerships (Q) (need to choose models)	
Career Exploration Programs	Few	High						-Career exploration programs (I)	
Integrated career awareness programs	Few	Moderate(el. High sec.)						-Integrated comprehensive career awareness programs (I)	
Paid work/study programs	None-few	Some-Interest						-Alternating paid work/study programs (I)	
Program development by umbrella organizations (YES Canada)	NA	NA						-Programs developed by umbrella organizations eg. YES Canada	
Re-Entry Strategies									
Alternative programs	Few	Moderate	Seen as effective	Some interest					
Alternative schools	None-few	Moderate	Seen as effective	Some interest	Recommended				
Individualized service/learning plans	Few	High	Seen as effective	Some interest (For transient students)	Recommended			-Individualized service plans (I)	

Defining priorities for research is a difficult task, particularly when one attempts to bring together policy-makers, practitioners, community representatives and researchers from a country as diverse as Canada. However, a synthesis of the data indicates strongly that a consensus emerged from the project. That consensus is recommended to Employment and Immigration Canada for consideration in developing its plans for funding research projects on school drop-out prevention.

Many consultations on research priorities involve only the research community. While such forums offer the benefit of more focussed discussions on the current state and directions of research itself, the specialized nature of the participants runs the risk of isolation from the real world of school systems. On the other hand, bringing together broadly-based forums which include researchers, policy-makers, practitioners and community representatives presents a challenge in harmonizing the differing perspectives about the issue before they can identify research topics of common interest.

The obvious value of broadly-based research consultations, which identify research questions which truly reflect the current needs of school systems, is further enhanced when one attempts to create a consensus about the issues before selecting topics. This requires that individual biases about the problem be negotiated within a group setting. Thus no one dominant personality or no single exciting, but potentially irrelevant, idea can capture the process.

The consensus which emerged from this project is expressed in four categories:

- items suggested for further qualitative investigations into the nature of the problem.
- single and multiple intervention strategies which should be evaluated through quasi-experimental research in to their effectiveness in reducing school drop-out rates.
- topics for data collection and dissemination which were of interest to participants
- general suggestions about the research methodologies which should be used in further research.

Qualitative Investigations into the Problem

Although this report has reviewed a significant amount of previous research into the problem of school drop-outs, it cannot be stated with confidence that this problem has been fully understood. At the national workshop, there were two perspectives which on the surface, appear to be contradictory but, in fact, are not.

Participants expressed the view that enough was known for action to be taken. Based on practice and countless individual descriptive studies, there is a significant amount of evidence which has accumulated which indicates that certain strategies are effective in reducing school drop-out rates, at least for the short term. There are numerous studies discussing the characteristics of school drop-outs and recently, theories have been developed to explain some of the causes. We can identify those at-risk of dropping out.

But participants raised three issues which should be answered through qualitative research even as we take action to implement some programs which are working.

1. Qualitative research should investigate the impact of issues such as critical thinking and conflict resolution skills in differentiating between those at-risk students who decide to stay in school and those who decide to leave. What is it about the students that stay that helps them with that decision?

2. Qualitative research should continue to investigate the perceptions and motivations of early school leavers. The research review identified recent focus group work that expressed the problem from the perspective of the drop-out. We need to know, from a communications standpoint, the arguments, words, symbols and substance of changes required to persuade our target audience of the need to stay in school.

3. Qualitative research should investigate and describe the impact of gender on factors such as self-confidence and the eventual decision to leave school.

Quasi-Experimental Research to Evaluate the Effectiveness of Different Strategies

The following recommendations are derived from an analysis of the chart discussed earlier and the notes of the working groups held at the national workshop. Ideas and suggestions which were similar in nature were combined or synthesized into these ten recommendations.

1. Evaluate the effectiveness of home/school contact or support programs, in particular, those which serve aboriginal or ethno-cultural minority communities. The programs to be evaluated should use a partnership approach involving the entire community.

Workshop discussions often expressed the view that programs should focus on those who are most at-risk. They also emphasized that programs should be based on a partnership or collaborative approach from the entire community. Questionnaire responses considered this particular expressed interest in such a study. Evaluating this strategy would also reflect the interest of workshop participants in parental/community involvement.

2. Compare the effectiveness of two different approaches to the intensive remediation of reading skills; language intensive schools and summer programs.

The research review described academic failure and reading deficiencies as central to the decision of many to leave school. The review also reported that remedial programs were an effective means to prevent drop-outs. The use of such remedial programs appears to vary across the country. Thus, these specific suggestions from the national workshop should be carefully considered.

3. Compare the impact of different models of effective schools which create optimal conditions in areas such as school mission statements, goal setting, staff development, parental involvement and, most importantly, in-school climate. Include qualitative research to identify the barriers to the implementation of such schools as part of the project. Consider the feasibility of using a non-

traditional approach to developing such effective schools such as using business management techniques or by building on the example of schools which have demonstrated success in school drop-out prevention.

The focus on the school as the administrative unit for change was consistent throughout the discussions held during this project. The research on effective schools was consistently of interest to questionnaire respondents, to departmental officials and to workshop participants. The Prevention Group elaborated upon a model school in its discussions. The Non-Traditional Group talked about demonstration schools. The evaluations of this type of drop-out prevention strategy would also reflect consistent interest in the impact of school climate among workshop participants.

4. Evaluate the impact of a comprehensive, community-based mobilization model (at a school district level) which uses multiple interventions from different agencies at the school site, which includes human development/life skills instruction, which incorporates learning styles assessments of at-risk students as well as mentoring, tutoring and support for student transitions within the school system (elementary to secondary) and which emphasizes supportive in-school climates.

The concepts of community mobilization and multiple interventions were well supported by the research and by participants in the consultation and the workshop. This particular proposal combines several specific interventions which were of interest to the working groups at the workshop. Four provinces/territories expressed interest in such a study. The Georgina School model in Toronto was of particular interest to workshop participants, although the concept would be applied at a school district/community model. Three of the working groups at the workshop expressed interest in the evaluation of such a multiple strategy approach. Interestingly, no research on such a model was found in the research review.

5. Evaluate the impact of a comprehensive teacher in-service and development programs which includes participation from business, parents, labour and other agencies in the community in its development and implementation.

Although it appears that few school systems across Canada have used a comprehensive teacher in-service strategy to prevent school drop-outs, interest in evaluating such programs was high among respondents to the questionnaire. The research review indicated that in-service programs can be effective in reducing school drop-out rates. The issue of teacher development also surfaced in two of the groups at the workshop.

6. Compare the effectiveness of different models of secondary school guidance and counselling programs in respect to school retention and the transition from school to work. Include a traditional counselling program as one of the models to be evaluated.

Based on the responses to the questionnaire, there does not appear to be a specific utilization of guidance programs as a highly focussed strategy to reduce school drop-outs anywhere in Canada. The research literature reviewed for the project did not discuss, in depth, the impact of different models of counselling programs on school retention, although such a discussion may occur in the literature more specific to counselling or guidance. Interest among workshop

groups dealing with interventions and transition/re-entry in a research project on counselling programs was high.

7. Evaluate the long-term effectiveness of WOW projects on school retention, comparing programs which do and do not have specific school follow-up components.

In consultation meetings held during the project, work orientation workshops (WOW) were often mentioned as one of the activities used to prevent school drop-outs. Most of the evaluations available to such respondents were administrative or short-term in nature. The research review identified work preparation or readiness programs as being effective in increasing school retention rates. Interest among questionnaire respondents was high. In one jurisdiction, the notion of comparing WOW projects which did and did not have specific school-based follow-up components was suggested. Three provinces/territories expressed interest in such a project.

8. Compare the effectiveness of different models of school-business partnerships in regards to school retention rates.

School-business partnership programs were seen to be of highly significant interest to questionnaire respondents and were identified by the research review as being effective. Two provinces/territories expressed interest in evaluating school-business partnership programs. The Transition/Re-Entry Group at the workshop identified several models which should be considered for such evaluative research.

9. Evaluate the long-term effectiveness of programs offered by umbrella organizations such as YES Canada in regards to school retention.

In a manner similar to that expressed about WOW projects, the Transition/Re-Entry Group at the workshop expressed interest in programs operated by organizations such as YES Canada. This recommendation could be considered as part of the school-business models suggested above.

10. Evaluate the effectiveness of individualized service plans.

Interest among questionnaire respondents about individualized service plans was high and the research review revealed that such plans are likely to be effective. One province expressed interest in such plans, particularly as they respond to the needs of transient students moving among schools in the same city.

Data Collection and Dissemination

Two suggestions were made in regards to compiling information of interest and disseminating that information widely. It was suggested that:

1. The results and reports of the various local START projects being funded through regional CEIC offices be compiled and disseminated.

2. That information on the development and implementation of student tracking systems be compiled and distributed to Departments of Education.

Some General Suggestions About Research

The concluding section of this paper offers several general suggestions which should guide further research evaluating the effectiveness of different strategies to reduce school drop-out rates. They are presented here for consideration in developing appropriate research proposals. They are taken from various sources including a very recent publication from the US Department of Education entitled, Making the Case: Evidence of Program Effectiveness in Schools and Classrooms: Guidelines for the US Department of Education Effectiveness Panel.

1. Resolve the difficulties associated with differing definitions of school drop-outs.

Definition

A prerequisite for the determination of the extent and nature of early school leaving in Canada is reliable statistical data compiled on the basis of a uniform definition The proliferation of studies in which issues related to computation of rates and interpretation of leaving trends are not addressed should no longer be tolerated.

The critical analyses of the past decade have prompted concerted efforts to provide a new and solid basis for monitoring leaving rates, collecting accurate and comprehensive information, and determining trends and patterns to inform policy decisions. In the words of Manno and Winters (1990), "the new challenge is to persuade educators, policy-makers, and the public to accept and use them as standards for gathering information and tracking changes over time." (p. 17)

Definitional discrepancies

Although pleas for the adoption of a standardized definition have appeared in the literature for almost as long as the issue of early school leaving has been perceived as a problem by educators and the general public, the database on early school leavers continues to be plagued by definitional problems. The frustration experienced by serious researchers is captured in the comments of Barber (1985) who attempted, on behalf of the Phi Delta Kappa Center for Evaluation, Development and Research, to derive a consensus definition:

> We simply cannot agree on what a drop-out is. In some districts, death, marriage, taking a job, entering the armed forces, entering college early, being expelled or jailed, going to a deaf school, business school, or vocational school causes one to be considered a drop-out. In another district none of these acts would be so considered. ...
>
> There are at least as many definitions of a drop-out as there are school districts recording drop-outs. Some districts solved the problem of who to count as a drop-out by not using any definition at all, whereas other districts had three or four definitions, and neither we nor they seemed to know which one was used. (pp. 7-8)

Confirmation of this chaotic state of affairs is provided in the document prepared by the National Center for Education Statistics (1990), in which revised guidelines for the calculation of drop-out rates is addressed: "At the present time, accurate and reliable information with which to answer the questions about drop-outs is not available." (Frase, 1989, p.1) As observed by (1987), the unfortunate result of this state of affairs is that after decades of study and analysis, the infusion of massive amounts of government money, and numerous attempts to create order out of a welter of apparently conflicting results, "A knowledge base regarding school drop-outs, from which programming activities can grow, has not been firmly established." (P.38) Consequently, "there is little agreement on the direction for school drop-out programming efforts". (p.38)

At the root of these difficulties is the failure to heed repeated calls for adoption of a common definition of the phenomenon under consideration. As noted in the 1985 study on Hispanic School Drop-outs (cited in Morrow, 1987), "the lack of ...uniformity in definition has kept policy and lawmakers from understanding the nature, scope and dimension of the drop-out problem." (p.3)

In order to compile accurate statistics concerning the extent of the early school leaver population, a definition should be adopted that would be used in future research. Until a uniform system of calculating the drop-out rate is developed and adopted in practice, drop-out prevention efforts will be hampered by lack of specific knowledge about district and individual school drop-out rates.

The failure to adopt and use a uniform definition for drop-outs and consequent problems with the validity, reliability, and comparability of available data have hindered policy-makers and government officials understanding of the nature and scope of the early school leaving phenomenon and their efforts to respond to it in a constructive and efficient manner. Recent developments, however, fuelled by increasing public concern and the growth of the accountability movement, provide some basis for optimism.

The distinction among the three early leaving rates (graduation rate, status rate and cohort rate), the delineation of critical components of a definition of a drop-out, and the clarification of the differential impact of established ways of record keeping on reporting drop-out rates constitute a basis for a major shift in the manner in which educational institutions and other agencies perceive and respond to early school leaving The adoption of a uniform definition and drop-out computation procedure is a necessary condition for progress in an area in which research and educational and societal response have been mired in a morass of conflicting findings, conclusions and recommendations.

The first step in this process in convincing everyone responsible for the development and implementation of educational policies related to record keeping and student monitoring that the cause is an important one, and that the social benefits of initiating long overdue changes will more than justify the initial costs and difficulties involved.

2. Continue to develop drop-out prevention theory

As stated earlier in this paper, research into the effectiveness of different strategies to reduce drop-out rates suffers from the absence of any accepted, comprehensive theory which explains the phenomenon in a consistent way.

3. Broaden the criteria for measurement of effectiveness

The concluding paragraphs of Section III of this paper suggested a series of evaluation criteria that could be developed into a set of evaluation instruments. We need to be able to measure the impact of a number of variables and it is therefore necessary to use a broader range of evaluation criteria. This would also ensure that our understanding of the nature of the solution to the drop-out problem (that simply staying in school is not enough without assurance that students are making educational progress) is being used as the basis for evaluation.

4. Ensure appropriate measurement is done

One of the difficulties in conducting drop-out prevention research is that at-risk students are generally loathe to participate in standardized achievement tests. Academic testing has usually been accompanied by failure for these students and thus the standardized tests may not always be reliable.

5. Ensure that attribution can be made to the intended effects of the prevention strategy.

Research in the real world of schools is problematic due to the variety of factors and events which can provide alternative explanations for the data. Research proposals should be accompanied by a full discussion of potential threats to validity such as teacher effects, student maturation, changes in related school priorities or programs and events in the community or the students' lives.

6. Develop potential for replication.

The use of multiple sites or across several years should be encouraged in future research in order to ensure the generalizability of the results. Drop-out Research does not need more descriptive studies of particular programs of interventions. As well, approaches which use a number of specific or general strategies will be in a stronger position to control the many variables.

7. Favour projects which have realistic objectives.

As stated earlier one of the major difficulties in this field of research is the scarcity of evidence of what prevention, intervention, transition or re-entry strategies can achieve in regards to the broad range of criteria described in Section III of this paper.

These general suggestions are offered as a reminder that after decades of research describing the characteristics of early school leavers and the particular effects of individual programs, it is time that the field moved into the next phase of activity.

If we are to reduce drop-out rates, we will need good information on how effective, affordable and acceptable programs can realistically benefit students. By describing, however briefly, the problems encountered in previous research, perhaps we can avoid them in the future.

Appendix One

Reports on Working Groups

National Invitational Workshop

GROUP REPORT

TRANSITION AND RE-ENTRY PROGRAMS AND STRATEGIES

Introduction

The group felt that agencies, departments and organizations that currently provide school-to-work transition programs as well as stay-in-school and return-to-school programs for "at-risk" students and for dropouts should be surveyed in order to develop an inventory of existing programs. This inventory would contain each program's objectives, its clientele and scope for intervention and whether or not it has been formally evaluated.

The group felt that, in developing a proposal for this inventory, an attempt should be made to address the particular needs of a variety of communities where work prospects may be limited. In other words, an attempt should be made to strike a balance between universality and specificity, to meet the needs of individual communities such as small communities, rural communities, native communities and ethnocultural communities.

The group began by considering four basic questions:

1. How do you keep students in school?
2. How do you help those students who stay through to grade twelve make a successful transition to the workforce or to the college/university level?
3. How do you help the dropouts make a successful transition to the workforce?
4. How do you get students back to school after they have dropped out?

That led the group to develop the following model:

	AT-RISK STUDENTS	DROPOUTS
IN-SCHOOL PROGRAM	KEEPING THEM IN	RETURNING TO SCHOOL
OUT-OF SCHOOL PROGRAM	TRAINING FOR SUCCESSFUL TRANSITION	TRAINING FOR SUCCESSFUL TRANSITION

PROGRAMS TO EVALUATE

Please note that, for the purposes of this discussion, the "community" is comprised of the following: family, business, labour, health and social services, employment agencies, adult education, colleges/universities, non-profit community agencies and government.

Criteria for Evaluation

The following was suggested by the members of the group as a list of possible criteria by which programs could be evaluated:

- links between the various stakeholders
- consideration given to gender differences
- accessibility
- clearly defined objectives
- flexibility
- evaluability
- portability.

Types of Programs To Be Evaluated

Three broad categories of programs were proposed as possible targets for evaluation. Each category was then subdivided into specific programs which could be evaluated.

1. Programs that involve education/community/business/labour partnerships
    - programs attempting to facilitate the transition of youth between education systems (e.g. junior high school to high school; high school to college)
    - programs of in-service training that help to broaden the perspective of the teachers (e.g. business and school exchanges)
    - umbrella organizations, strategies, agencies that try to coordinate services to drop-outs (e.g. evaluate the effectiveness of such programs as Youth Employment Counselling Services, WOW, YES Canada)
    - social service and financial incentive programs (e.g. evaluate effectiveness of such financial incentive programs for youths whose families receive social assistance as book allowances, transportation allowances, clothing allowances)
    - family contact and involvement programs
    - business partnerships (e.g. co-op programs, apprenticeship programs, job shadowing, role modelling)
2. Programs of employment preparation and work experience, career orientation and labour market information, lifeskills and transition counselling
    - traditional high school counselling programs
    - specific career exploration courses and events
    - integrated career education programs
    - programs that combine alternating periods of paid on-the-job training and academic preparation (e.g. apprenticeship programs)
3. Alternative schooling and individualized instruction
    - individualized service plans to meet the needs of at-risk students

Regarding the Problem Statement on page 8 of the discussion paper, members of the group made the following comments:

1. "Technological world of tomorrow" should be changed to "the demands of the world of tomorrow".

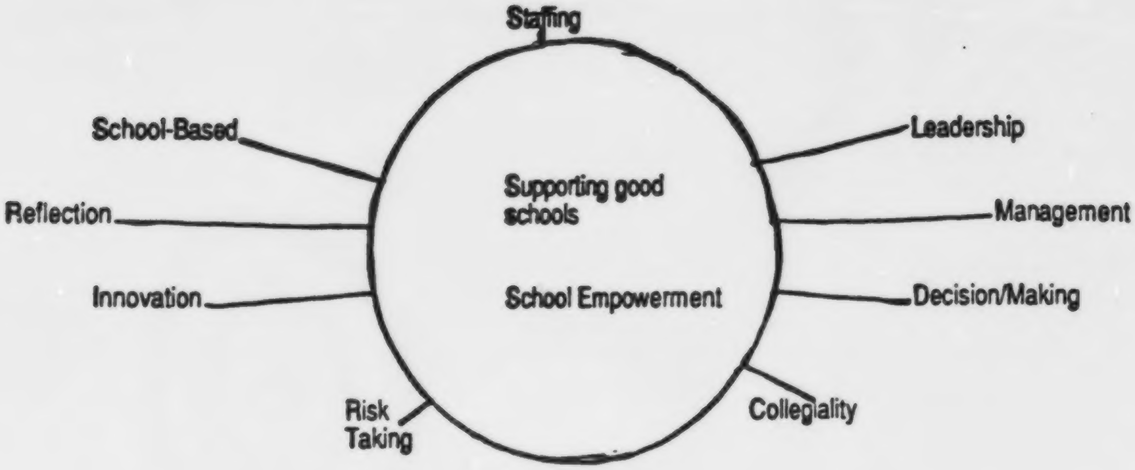
2. It is not enough to keep children in school but the system has to ensure that students complete secondary school with the necessary literacy and numeracy skills to be trainable, to be able to compete and to succeed in a changing workforce.

PREVENTION GROUP

Research Possibilities

1. Establish link between "critical thinking" skills and school drop-outs (to build reasoning, tolerance for frustration, decision-making, self-esteem).
2. Investigate parent-child centres (to build parenting skills, reduce stress, increase language acquisition).
3. Explore impact of junior kindergarten, kindergarten - particularly for at risk students through longitudinal, comprehensive tracking of children and impact.
4. Conduct investigation of research on parent involvement, especially of at risk students (at the preschool and school level).
5. Investigate existing small scale projects (school or classroom based) eg. parent involvement, peer counselling.
6. Investigate demonstration schools/projects or classes at the primary level using language intensive approaches - based on the assumption that reading competence is essential to improved success.
7. Investigate gender-specific strategies to address/increase self-concept and success (eg. 12 year old transition stage in girls, affirming confidence, pregnancy prevention).
8. Investigate impact of summer programs on retention as well as year-round schooling, flexible hours and sem~~i~~estering.
9. Investigate issues such as age of entry, gender, risk factors,emotional maturing in relation to school retention.
10. Investigate impact of school climates - impact of a "model school" characteristics such as: a) school/staff development programs; b) school-based management; c) community involvement.
11. Investigate and assess barriers to effective schools, in particular barriers to schools being able to teach to and with individuals, eg. standardized provincial tests, comparison of evaluation practices.

A Model of Effective Schools


Staffing
School-Based
Leadership
Supporting good schools
Reflection
Management
Innovation
School Empowerment
Decision/Making
Risk Taking
Collegiality

-There is research on effective schools but it is not always transferable.
That research needs to be used in further studies.

7. Determine what the effects on student retention are when a community worker is on-site in a school.

8. What guidance and counselling programs are most effective? What are the characteristics of effective counselling re: personnel and programs.

9. What sustains the dropout, what drives their daily life? How do we use this knowledge to change instruction and school climate such that they may complete their schooling.

10. Determine what mentorship structures are most effective re: student retention.

11. Determine the effectiveness of incentives on keeping students in school. (see Phi Delta Kappan, Nov., 1990, p.227.)

12. Determine the effectiveness of attendance/truancy monitoring systems singly or in combination. Examples include: automated systems, professional attendance officers, volunteer attendance officers, peers, teachers, and administrators.

13. Determine the effectiveness of various tutoring models including: peers, parents, teachers, volunteers, computer-assisted instruction, homework hotlines, study halls, etc.

14. Determine the effectiveness of lifeskills on identified at-risk students as it relates to student retention.

15. Assess which of the current START projects are most effective re: student retention and share project details with all provinces.

16. Using the definition of drop-out currently being tested in the United States (and mentioned in the literature review distributed for the workshop in Ottawa) assist the Ministries of Education to develop appropriate student tracking procedures. Track retention rates by province for a number of years to assess effectiveness of START projects.

17. Determine the effectiveness of the B.C. "Year 2000" Royal Commission on Education to:

- revise the secondary curriculum to make it more relevant to those students not pursuing post-secondary education.

- determine student retention rates as a result of Royal Commission education reform and START initiatives.

- determine the effectiveness of curriculum integration and educational program streams at retaining native and ESL populations, especially the S.D. #56 (Nechako) Pathfinder experiment at Fort St. James.

- determine how S.D. #56 board, principals, community, Tribal Council, teachers, and local businesses were polarized into supporting positive change in student retention, especially for the 25% native enrolment in Nechako, 40% in Ft. St. James.

- review district self-financing to see how Pathfinders was purchased from local school district funds for pupils that otherwise would have dropped out.

GROUP REPORT

TRANSITION AND RE-ENTRY PROGRAMS AND STRATEGIES

Introduction

The group felt that agencies, departments and organizations that currently provide school-to-work transition programs as well as stay-in-school and return-to-school programs for "at-risk" students and for dropouts should be surveyed in order to develop an inventory of existing programs. This inventory would contain each program's objectives, its clientele and scope for intervention and whether or not it has been formally evaluated.

The group felt that, in developing a proposal for this inventory, an attempt should be made to address the particular needs of a variety of communities where work prospects may be limited. In other words, an attempt should be made to strike a balance between universality and specificity, to meet the needs of individual communities such as small communities, rural communities, native communities and ethnocultural communities.

The group began by considering four basic questions:

1. How do you keep students in school?

2. How do you help those students who stay through to grade twelve make a successful transition to the workforce or to the college/university level?

3. How do you help the dropouts make a successful transition to the workforce?

4. How do you get students back to school after they have dropped out?

That led the group to develop the following model:

Types of Programs To Be Evaluated

Three broad categories of programs were proposed as possible targets for evaluation. Each category was then subdivided into specific programs which could be evaluated.

1. Programs that involve education/community/business/labour partnerships
   - programs attempting to facilitate the transition of youth between education systems (e.g. junior high school to high school; high school to college)
   - programs of in-service training that help to broaden the perspective of the teachers (e.g. business and school exchanges)
   - umbrella organizations, strategies, agencies that try to coordinate services to drop-outs (e.g. evaluate the effectiveness of such programs as Youth Employment Counselling Services, WOW, YES Canada)
   - social service and financial incentive programs (e.g. evaluate effectiveness of such financial incentive programs for youths whose families receive social assistance as book allowances, transportation allowances, clothing allowances)
   - family contact and involvement programs
   - business partnerships (e.g. co-op programs, apprenticeship programs, job shadowing, role modelling)
2. Programs of employment preparation and work experience, career orientation and labour market information, lifeskills and transition counselling
   - traditional high school counselling programs
   - specific career exploration courses and events
   - integrated career education programs
   - programs that combine alternating periods of paid on-the-job training and academic preparation (e.g. apprenticeship programs)
3. Alternative schooling and individualized instruction
   - individualized service plans to meet the needs of at-risk students

	AT-RISK STUDENTS	DROPOUTS
IN-SCHOOL PROGRAM	KEEPING THEM IN	RETURNING TO SCHOOL
OUT-OF SCHOOL PROGRAM	TRAINING FOR SUCCESSFUL TRANSITION	TRAINING FOR SUCCESSFUL TRANSITION

PROGRAMS TO EVALUATE

Please note that, for the purposes of this discussion, the "community" is comprised of the following: family, business, labour, health and social services, employment agencies, adult education, colleges/universities, non-profit community agencies and government.

Criteria for Evaluation

The following was suggested by the members of the group as a list of possible criteria by which programs could be evaluated:

- links between the various stakeholders
- consideration given to gender differences
- accessibility
- clearly defined objectives
- flexibility
- evaluability
- portability.

Regarding the Problem Statement on page 8 of the discussion paper, members of the group made the following comments:

1. "Technological world of tomorrow" should be changed to "the demands of the world of tomorrow".

2. It is not enough to keep children in school but the system has to ensure that students complete secondary school with the necessary literacy and numeracy skills to be trainable, to be able to compete and to succeed in a changing workforce.

Group #4 - Non-Traditional

Participants:

Helen Balanoff	Department of Education, Northwest Territories
William H. Spain	Memorial University of Newfoundland
Marie-Chantel Guidon	Faculte d'education, Universite de Sherbrooke
Jack Simpson	Ottawa Board of Education
Tom Tidey	Ontario Ministry of Education
Donna Marion	Canadian Congress on Learning Opportunities for Women
Leonard Russell	P.ED. - Cabinet Committee on Government Reform
Mike Shimpo	University of Waterloo
Jim Belding	EIC, Youth Strategy, New Brunswick
Doug Crawford	Canadian Vocational Association
Paul Madak	Faculty of Education, University of Manitoba
Gerry Hanrahan	EIC Newfoundland
Colin Morrison	York Region Education/Industry Foundation and Career Centre
Pierre Quirouette	PIOR
Bob Connors	Skills Canada
Claudia Wright	NIAC
Lynn ?	Canadian Guidance and Counselling Association

Group 4: Non-Traditional Group

Facilitator: Gordon Mutter (Health & Welfare)
Recorder: Helen Balanoff (Department of Education, GNWT)
Reporter: Lynn ? (Canadian Guidance & Counselling Association)

Day 1

Interests in the drop out problem were expressed in terms of research-related questions. They have been grouped into broad categories.

i. Educational System

- the problem is systemic. What can be done in the system to promote learning? What motivates students to work (learn)? We know what strategies work and what changes need to be made. The problem is one of implementation. (How do we deal with change and resistance to change in the system?)
- Conflict regarding the purpose of schooling (Is it to produce people who can lead productive lives or is it to produce someone with a diploma?)
- Systemic bias that schools are conduit models and university factories (How can we change attitudes?).
- What is aboriginal perception of schooling? How can we implement that?
- What is relevant for students to learn?

ii. Services

- Integration of services (How can we better deliver all services to children?)
- Are there models?

iii. Research

- Overall, we need better communication on research which already has been done already?

Outcomes:
- What is the purpose of schooling?

Tracking:
- Better tracking system to ensure data integrity.
- Clarification regarding definition of a drop-out.

Critical Incidents:
- Methodology - students should be involved in identifying what they think education should be.

. . . /2

- Gender issue of school leaving
- More information on students who fade out, rather than drop out.
- What motivates students?
- What is relationship between expectations and success?

Learning Styles:
- How do we address the variety of learning styles? How do we determine appropriate instructional techniques? How do we reflect differences between styles of girls and boys?

Cost Effectiveness
- What are costs to society of students dropping out of school compared to cost of serving "hard to serve" students?

iv. Teacher Training Issues

- Methodology - should use good teachers as a resource.
- How do we address early school leaving in teacher training?
- How can we impact on faculty members in faculties of Education?
- How can we influence biased attitudes re: options for students and view of schools?
- How do we maintain good teachers without burnout? (teacher renewal)
- What are the basic competencies required by young people for survival?

v. Career/Life Education

- How do we incorporate power of key players, e.g. employers, to help students figure out what they want to be?

vi. Mobilization of Communities

- How do we develop strategic partnerships within communities?
- How do we mobilize all sectors of the community?
- What are the key ingredients of the process which can be used as a generic model?
- How can we empower parents?

. . . /3

vii. Demonstration Schools

A demonstration school would not be a separate school for drop outs, but would be an effective school for all students. The intent would be to use it as a model for training which would enable it to be institutionalized into the school system. Elements of particular importance would include:

- organization and structure
- management and leadership
- school climate.

viii. National Coordinated Education Direction

How could this be established which would provide at the least a network of information and raise the consciousness of the whole country?

Specific Research Sites:

a. Partnership with Telecom
Norm Lee, Bird's Hill School, Bird's Hill, Manitoba

b. Relevancy - Cultural Studies
- Rexton School Project, New Brunswick

c. Career Exploration
- 50 WOW projects in New Brunswick

d. Mentorship Programs
- Evergreen School Division, Winnipeg
- River East School Division #9, Winnipeg (one for students, one for teachers).

e. Alternate Delivery Systems
- numerous schools in U.S.

f. Community Mobilization
- "Let's Graduate Georgina" - (Georgina near Toronto)

CANADIAN GUIDANCE AND COUNSELLING FOUNDATION
FONDATION CANADIENNE D'ORIENTATION ET DE CONSULTATION

202 - 411 avenue Roosevelt Avenue, Ottawa K2A 3X9, Canada
Phone (613) 729-6164 Fax (613) 729-3515 e-mail cgcxf@uottawa

February 25, 1991

Mr. Doug McCall
Shannon and McCall Consulting
1133-160 A Street
White Rock, B. C.
V4A 7G9

Dear Doug,

My apologies for being somewhat late in getting this summary to you. Being exceedingly busy at work plus a winter flu have slowed me down. Finally, here are the contributions of the group focusing on innovation.

I have included two sections. The first is a listing of the important issues the group agreed to by the end of Friday. The second is the shorter list of priorities which we completed on Saturday and which were, more or less, presented orally to the plenary session. I thought you would find both useful in making your report.

Friday Listing of Issues for Research and Development:

1. An important area for research is the area of evaluation itself. Evaluative models for programs, the definition of outcome measures and creative methodologies for evaluating existing programs are not readily available. The thinking was that some effective programs do exist, but the techniques to evaluate and prove their worth do not, except in longitudinal studies which are usually too slow to advise policy makers. A sound research investment could be in designing creative evaluation methods and strategies. These methods should include methods of tracking students and drop-outs which are possible for institutions to implement without being overly resource intensive. Often hard data is not available because it is too costly, time consuming and resource intensive to implement.

2. The impression the group had was that the drop-out was being described somewhat stereotypically - i.e. kids who are or who end up on the streets, females who are pregnant, drug dependency common etc. The group described the "FADE-OUT" youth who, in their experience, was far more common. This youth makes no noise, is quite invisible in the system and just quietly disappears, usually into low paying, limited opportunity jobs. It was suggested that more research focused on the fade-out process could inform better on strategies for prevention.

3. Not enough research appears to have been conducted to determine critical incidents which contribute to the decision to drop out. In the literature review which was completed for the session, very little research appeared to have been done with the youth themselves in order to better understand the significance for them of the decision to drop out. Most of the research appeared to use teacher, parent, counsellor perceptions of the problem. A fertile area might then be critical incident research with drop out youth themselves to better inform on the issues.

4. Again, the impression the group had was that, to some degree, the idea of a warm and caring adult as the solution was being presented and was overly simplistic. Individuals in the group cited knowledge of very good programs led by warm and caring teachers, in which motivation or lack thereof in the students themselves seemed to be a more crucial variable. Little is understood about the factors influencing motivation. This could be a fruitful area for additional research.

5. Increased research and the development of professional training programs to assist teachers to adapt teaching methods in response to different learning styles of youth were encouraged. Classroom teaching at the secondary school level is not well suited for students whose learning styles require structure, smaller group interaction and practical applications of new learning. It is thought that many drop-outs fit this pattern of learning and their capacity to learn in current systems is limited.

6. Counteracting the academic/university bound bias of the school systems was seen as crucial. The majority of secondary school students do not proceed to university and yet the many other career choices via community college, apprenticeship, skilled trades training are not validated and held in esteem in the school systems. It is difficult for many youth to feel acknowledged and valued for their choices. This is a systemic problem, quite peculiar to North America and very harmful to the self-esteem of many young people. It may not be a research issue per se, except perhaps research into attitude change; however, it was felt by the group that this was a central issue in beginning to reduce the drop-out rate and possibly one with the greatest potential impact.

7. Innovative Teacher training at Faculties of Education was seen as a necessary step. Again, this was not a subject for research per se, but rather program development which potentially could make a major impact. Faculties of Education are still seen as being subject-centered with inadequate attention paid to the development of the self confidence, self knowledge, career and life preparation of the students. It was suggested that the research indicates

already the drop-out profile to include difficulties in each of these areas. When, however, one looks to the secondary school system to see where these issues are being addressed and who is teaching or incorporating them in classrooms, they are largely not there. It was questioned if factors contributing to school retention were even taught at faculties of education. Resources placed into teacher renewal programs and influencing faculty of education curricula were seen as resources well spent.

8. There had been considerable discussion on requiring more research in order to delineate a common understanding of the drop-out profile. The group felt that enough was known and that more research in this area was not productive. It was suggested and agreed that a more positive and constructive approach which made the schools accountable in different ways might be attempted. A "COMPETENCY" framework was suggested in which schools identify basic competencies, in addition to subject centered competencies, which form part of their mandate. Basic competencies include basic literacy skills, career preparation and planning skills and experience, personal development skills in the areas of self esteem, communication skills, fundamental life skills. It was suggested that a drop-out could begin to be understood as a student who left the school system with deficits in the basic competency areas. More work would be needed to expand the idea. The basic principle was that we might get much further by re-framing our understanding of the drop-out from a list of negatives and failings in the individual or the system and rather begin to focus on a developmental perspective which is positive in orientation. It was held strongly in the group that the human development side of adolescent development was largely lacking in school curricula and it might be a very productive place to begin some innovation. Competencies appropriate to age and grade levels could be defined, faculties of education could assume responsibility for training teachers to be both subject and person developers, and a creative positive approach attempted.

9. Creative community strategies were discussed and encouraged. The best example was one currently underway in Ontario titled "Let's Graduate Georgina". Georgina is a community outside Toronto. The project is one to raise the awareness and change the consciousness of the entire community to the drop-out issue. It is a strategic plan in which the community is assisted to both own the problem and take responsibility, appropriate to the sector they represent, for solution. The developers are very encouraged by preliminary results and encourage more research and testing of creative community based strategies.

10. It was suggested that school systems seem often to keep community resources out, rather that inviting them in to assist.

Specific examples of the use of elders in native schools as well as more active use of parents and employers generally were discussed. How to assist the school systems to be more open to change was seen as an important intervention.

Saturday Synthesis and Identified Priorities:

We attempted to group our priorities into key themes which might suggest fruitful directions. Three themes emerged:

1. Research:
It was strongly held that more pure research, particularly experimental research with treatment and control groups, was not the most productive or needed route to follow. It was felt that much is known and that good programs do exist but that they are not disseminated widely and have not undergone rigorous evaluation which would encourage their wider adoption. While respecting the mandate of Innovations to support research initiatives, it was hoped that this could be interpreted more broadly and could include demonstration projects as well as support for comprehensive evaluation strategies and evaluations themselves. A mechanism to inform nationally on programs which have merit was seen as a major need.
A concern was that frequently a research mandate lends itself only to short-term strategies and it was hoped that some longer-tern strategies could also be supported and incorporated.
In the more purely research areas, the most supported were in evaluation methodologies, students who are most at risk, particularly Aboriginal students where not enough is understood, and the issue of academic bias which was seen as singularly destructive.
In the applied research and development areas, most support was expressed for the inclusion of human development/career development basic competencies in school programming and incorporating these as compulsory teacher training and in-service training.

Demonstration Schools:
It was suggested that a few well designed, developed and managed demonstration schools might be very effective and influential. They could be strategically placed nationally and be the sites for the testing and comprehensive evaluations of programs which are known to be producing results now. These could also be sites where different teaching methodologies (according to learning styles for example) are tested and over time, could serve as in-service training locations for teachers. Also, these demonstration schools could experiment with the basic human/career development competency framework described above. It was thought that these sites could be catalysts for wide-spread change in existing systems. Again, it was hoped that the Innovations mandate might be sufficiently broad

that it might incorporate this idea while at the same time conducting original research into creative and appropriate evaluative methodologies (as one example among many possible ones).

Systemic Change:
The group agreed that some of the changes necessary were systemic and needed strategic and careful planning to be accepted. School systems need to become more flexible and need assistance to become so. It was noted that schools have kept themselves removed from current management principles, theories and practices and that perhaps much could be learned from business about managing the change process, learning from success, empowering personnel, creating mission and vision statements and principles etc. There could be much potential impact on professional development of principals, creating school climates, empowering teachers and students and activating the community. Strategies to promote system change were encouraged.

I hope this summary is helpful and I do hope I have accurately conveyed the thought and conclusions of the group. I have taken the liberty of forwarding this to Colin Morrison who was also in our group and asked him to review it to ensure that I have expressed the central conclusions of the group. If Colin suggests some additions or changes, I will forward them to you as soon as I receive them.

Please do not hesitate to contact me if you need any clarification of any point or if I can assist further. If it is possible, I would appreciate receiving a copy of the report which is prepared and submitted. Thank you for the opportunity to participate in the conference.

Yours sincerely

Lynne Bezanson

Lynne Bezanson
Director

BIBLIOGRAPHY

Annis, L.F. (1983). The process and effects of peer tutoring, Paper presented at the annual meeting of the American Research Association.

Azcoitia, C., & Viso, P.A. (1987). Dropout prevention: Chicago Style. Vocation Education Journal, 62(2), 33-35.

Bachman, J.G., & VanDuinen, E. (1971). Youth look at national problems: A special report, Ann Arbor, MI: Institute for Social Research, Survey Research Center.

Banks, D. (1987). This dropout-prevention program is a bold alternative to alternative education. American School Board Journal, 174(7), 25-40.

Barber, L. (1985). Dropouts, transfers, withdrawn and removed students, Bloomington, IN: Phi Delta Kappa, Center for Evaluation, Development and Research, Mimeographed, pp. 7-8.

Batsche, C. (1984). Indicator of effective programming for school to work transition skills among dropouts, Illinois State Board of Education, Dept. of Adult, Vocational and Technical Education, Springfield.

Beck, L., & Muia, J. (1980). A portrait of a tragedy: Research findings on the dropout. The High School Journal, 64(2), 65-72.

Bhaerman, R.D. & Kopp, K.A. (1988). The school's choice: Guidelines for dropout prevention at its middle and junior high school. National Center for Research in Vocational Education, Columbus, OH.

Bhagat, R.S., & Chassie, M.B. (1978). The role of self-esteem and locus of control in the differential prediction of performance and program satisfaction in an educational organization. Journal of Vocational Behaviour, 13, 317-326.

Bing, S.R., Comp., Wheelock, A., Comp. (1986). Students at risk and the schools they go to: An advocate's bibliography. Equity and Choice, 3(1), 12-13.

Black, K.C. (1988). A response to the Ontario study of the elevance of education and the issue of dropouts. Ontario Public School Trustees' Association Inc., Ontario Education, 20(3).

Borus, M.E., Crowley, J.E., Rumberger, R.W., Santos, R., & Shapiro, D. (1980). Findings of the national longitudinal survey of young Americans, (Youth Knowledge Development Report 2.7). Washington, DC: U.S. Government Printing Office.

Brennan, T. (1989). Helping youth make wise decisions. The relevance of Jannis and Mann's Conflict Theory for decisional counselling. *Journal for Vocational Special Needs Education*, *11*(3).

Brodinsky, B., & Keough, K.E. (1989). *Student at risk: Problems and solutions*, American Association of School Administrators.

Brookover, W.B. Erickson, E.L., & Joiner, L.M. (1967). *Self-concept of ability and school achievement: III. Relationship of self-concept of achievement in high school*, (Cooperative Research Project No 2831). East Lansing, MI: Michigan State University, Office of Research and Publications.

Brookover, W.B., Lepere, J.m., Hamachek, D.E., Thomas, S., & Erickson, E.L. (1965). *Self-concept of ability and school achievement: II. Improving academic achievement through student's self-concept enhancement*, (Cooperative Research Project No. 1636). East Lansing, MI: Michigan State University, Office of research and Publications.

Calabrese, R.L. (1988). The structure of schooling and minority dropouts rates. *The Clearing House*.

Calabrese, R.L. (1988). Schooling, *61*, alienation and minority dropouts. *The Education Digest*, (from The *Clearing House*, LXI) *54*.

Camp, C. (1980). *School dropouts*, Sacramento, CA: California Legislature, Assembly Office of Research.

Carr, R.A. (1983). *Theory and practice of peer counselling*, Ottawa, ON: Canada Employment and Immigration.

Chandler, T. (1980). Peer tutoring. *The Clearing House*, 52, 59-60.

Chapman, J.W., & Boersma, F.J. (1979). Academic self-concept in elementary learning disabled children: A study with the student's perception of ability scale. *Psychology in the Schools*, 16(2), 201-206.

Chilman, C.S. (1980). Social and psychological research concerning adolescent childbearing: 1970-1980. *Journal of Marriage and the Family*, 42(4), 793-805.

Curtis, J., Macdonald, J., Doss, D., & Davis, W. (1982). *Dropout prediction*, (Paper presented at the AERA Convention, Montreal, PQ.) Washington, DC: National Institute of Education (No. 82.56).

Davies, L.R. (1980). Psychological and educational characteristics: A profile comparison of alternative school students, Unpublished education diploma, University of South Dakota.

Denton, W.T. (Ed.). (1987). Dropouts, pushouts, and other casualties, Bloomington, IN: Phi Delta Kappa, Center for Evaluation, Development and Research, pp. 89-99.

Department of Education. (1981). Rural education: Options for the '80's: A discussion paper, Regina, SK.

DeRidden, L.M. (1988). School dropout prevention begins in the elementary years. Elementary, 108, p. 488-492.

Digest of Educational Statistics 1983-84. Washington, DC: U.S. Government Printing Office.

Dropout prevention: Strategies that work. PTA Today, 12(6), April 1987, pp. 25-26.

Dryfoos, J. (1983). Review of interventions in the field of prevention of adolescent pregnancy, New York: Rockefeller Foundation.

Dryfoos, J. (1985). Prevention strategies: A progress report, New York: Rockefeller Foundation.

Earle, J., Fraser, K. & Roach, V. (1987). What's promising: New approaches to dropout prevention for girls. The Youth Services Program, National Association of State Boards of Education, U.S.A.

Eckenrod, J., & Wheeler, C. (1987). Innovative technology gives potential dropouts a new lease on learning. American School Board Journal, 174, 41-42.

Elliott, D. (1972). Personality factors and scholastic achievement. British Journal of Educational Psychology, 42, 23-32.

Fine, M. (1983). Perspectives on inequity: Voices from urban schools. In L. Beckman (Ed.), Applied social psychology annual (pp. 160-172). Beverly Hills, CA: Sage.

Fine, M. (1987). Why urban adolescents drop into and out of public high school. In G. Natriello (Ed.), School dropouts: Patterns and policies, (pp. 52-69). New York: Teachers College Press.

Fine, M., & Rosenberg, P. (1983). Dropping out of high school: The ideology of school and work. Journal of Education, 165(3), 257-272.

Fogarty, J.L., & Wang, M.C. (1982). An investigation of the cross-age peer tutoring process: Some implications for instructional design and motivation. Elementary School Journal, 82, 450-469.

French, J.L., & Cardon, B.W. (1968). Characteristics of high mental ability school dropouts. Vocational Guidance Quarterly, 3, 162-168.

Friedman, A.S. (1985). Does drug and alcohol use lead to failure to graduate from high school? Journal of Drug Education, 4, 353-64.

Gadwa, K., & Griggs, S.A. (1985). The school dropout: Implications for counsellors. The School Counsellor, 33(1), 9-17.

Garber, H. (1989). Dropping out and returning to urban schools: understanding why both happen, Paper presented at the Annual Meeting of the American Educational Research Association, March 27-31, San Francisco, CA (ERIC Document Reproduction Service No. ED. 310-218).

Gasright, J.F. (1985). Don't base your program on somebody else's problem, Phi Delta Kappen, Center on Evaluation, Development, and Research, Research Bulletin No. 8.

Gerlach, R., & Richardson, R.L. (1980). Black dropouts: A study of significant factors contributing to a black student's decision. Urban Education, 14(4), 489-494.

Good, C.V. (Ed.). (1973). Dictionary of education (3rd ed.). New York: McGraw-Hill.

Goodell, R.F. (1990). A notion of survey - High school dropout situation. Vancouver: Cambell Goodell Consultants Limited.

Goodlad, J.I. (1984). A place called school: Prospects for the future, New York: McGraw-Hill.

Grant, W. (1976). Factors responsible for dropouts. International Association of Pupil Personnel Workers Journal, 20(2), 81-85.

Gruskin, S.J., Campbell, M.A., & Paulu, N. (1987). Dealing with dropouts: The urban superintendents network. Washington, D.C.: U.S. Department of Education.

Hathaway, S., Reynolds, P., & Monachesi, E. (1969). Follow-up of the later careers and lives of 1000 boys who dropped out of high school. Journal of Consulting and Clinical Psychology, 33, 370-380.

Hawkins, J.D., & Catalano, R.F., (1990), Broadening the vision of education: Schools as health promoting environments. *Journal of School Health*, *60*(4), 178-181.

Heath, D.H. (1970). Student alienation and school. *The School Review*, *78*, 515-528.

Hendrickson, J.C. (1981). *Using low achievers to tutor reading and mathematics*, International Reading Association Conference Report.

Hetherington, R., Dickinson, J., Cipywnyk, D. & Hay D. (1978). Drinking behaviour among Saskatchewan adolescents. *Canadian Journal of Public Health*, 69, 315-324.

Hewitt, S.K. (1981). *Learning disabilities among secondary in-school students, graduates, and dropouts*. Unpublished doctoral dissertation, University of Minnesota.

Hill, C.R. (1979). Capacities, opportunities, and educational investment: The case of the high school dropout. *Reviewing Economics and Statistics*, *61*, 9-20.

Howe, H. II. (1989) *Keeping students in school: A guide to effective dropout prevention programs and services*. San Francisco: Jossey - Bass.

Howell, F.M., & Frese, W. (1982). Early transition into adult roles: Some antecedents and outcomes. *American Educational Research Journal*, *19*, 51-73.

Hugie, D. (1984). *Alternative educational opportunities in Saskatchewan high schools*. Unpublished master's project, University of Saskatchewan, Saskatoon.

Hull, C.H. & Nie, N.H. (1981). *SPSS Update 7-9*. New York: McGraw Hill.

Hunter, M. (1989). Join the par-aid in education. *Education Leadership*. *47*(2), 36-41.

Keefe, J.W. (1988). Dropout prevention strategies. *The practitioner*, *15*(2), National Association of Secondary School Principals.

King, A.J.C. (1985). *The adolescent experience*, Toronto, ON: Ontario Secondary School Teachers Federation.

King, A.J.C., Robertson, A.S., & Warren, W.K. (1985). *Summary report on Canada health attitudes and behaviours survey (9, 12, and 15 year olds)*. Kingston, ON: Queen's University.

King, R.H. (1978). *The labour market consequences of dropping out of high school*. Columbus, Ohio: Ohio State University.

Kirsch, I., & Jungeblut, A. (1986). *Literacy: Profiles of America's young adults*, Princeton, NJ: Educational Testing Service.

Knowles Centre Inc. (1987). *School-based planning: Review of the literature*, Unpublished paper. Winnipeg, MB, Inner City Initiative.

Lajoie, S.P., & Shore, B.M. (1981). Three myths? The over-representation of the gifted among dropouts, delinquents, and suicides. *Gifted Child Quarterly*, *25*(3), 138-142.

Larses, P., & Shertzer, B. (1987). The high school dropout: Everybody's problem. *The School Counsellor*, *34*, 163-169.

Lazerson, D.B. (1980). I must be good if I can teach: Peer tutoring with aggressive and withdrawn children. *Journal of Learning Disabilities*, *13*, 152-157.

LeCompte, M., & Goebel, S.D. (1987). Can bad data produce good program planning? An analysis of record-keeping on school dropouts. *Education and Urban Society*, *19*, 250-268.

Lee, S., Bryant, S., Noonan, N., & Plionis, E. (1987). Keeping youth in school: A public-private collaboration. *Children Today*, *16*(4), 15-20.

Lefkowitz, B. (1987). *Tough change: Growing up on your own in America*. New York: Free Press.

Levin, H.M. (1972). *The costs to the nation of inadequate education*, Report to the Select Committee on Equal Educational Opportunity of the U.S. Senate. Washington, DC: U.S. Government Printing Office.

Levin, H.M. (1986). *Education reform for disadvantaged students: An emerging crisis*, West Haven, CT: National Education Association.

Lichter, S., Rapien, E.B., Siebert, F.M., & Sklansky, M.D. (1962). *The dropout: A treatment of intellectually capable students who drop out of high school*, New York: The Free Press.

Lindgren, H. (1980). *Educational psychology in the classroom*. New York: Oxford.

Little, L.F., & Thomson, R.E. (1983). Truancy: How parents and teachers contribute. *The School Counsellor*, 30, 285-291.

Livingstone, D.W., Hart, D.J., & Davie, L.E. (1984). *Public Attitudes Toward Education In Ontario*, Fifth OISE Survey, Informal Series/62, The Ontario Institute for Studies in Education, Toronto.

Loevinger, J., Gleser, G.C., & Dubois, P.H. Maximizing the discriminating power of a multiple-score test. Psychometricka, 18, 309-317.

Long, B.H., Ziller, R.C., & Henderson, E.H. (1968). Developmental changes in the self-concept during adolescence. The School Review, 76, 212-230.

Macdonald, M.H. (1987). Cognitive academic and personality characteristics of early school leavers and persisters. Unpublished master's thesis, University of Saskatchewan, Saskatoon.

Macdonald, M.H. (1989). Early School Leavers: Current Issues and Concerns. Unpublished report, SIDRU Research Report, No. 10.

Mahan, G., & Johnson, C. (1983). Portrait of a dropout: Dealing with academic, social, and emotional problems. NASSP Bulletin, 67(462), 80-83.

Mann, C., A study of the first year of employment of representative groups of girls who failed to reach high school graduation, Ontario Journal of Educational Research, 1964-65, 7(2); 165-177.

Mann, D. (1984). Excellence? For whom? Equity and Choice, 1(1), 4-6.

Mann, D. (1985). Action on dropouts. Educational Leadership, 43, 16-17.

Mann, D. (1986). Dangers and dividends: Dropout prevention - Getting serious about programs that work. NASSP Bulletin, 70, 66-73.

Mare, R.D. (1980). Social background and school continuation decisions. Journal of the American Statistical Association, 75, 295-305.

Marockie, H., & Jones, L.H. (1987). Reducing dropout rates through home-school communication. Education and Urban Society, 19(2), 200-205.

Martin, L.G. (1987). Youthful high school noncompleters: Enhancing opportunities for employment and education. National Center for Research in Vocational Education, Columbus, OH.

McKay, R., & Myles, L. Native student dropouts in Ontario schools, Student Retention and Transition Series, Ontario Ministry of Education, Toronto.

Merritt, R. (1983). The effect of enrollment and school organization on the dropout rate. Phi Delta Kappan, 65, 224.

Miller, J. (1973). Schooling and self-alienation: A conceptual view. Journal of Educational Thought, 7(2), 105-120.

Mills, R.C. (1984 April). Relationship between school motivational climate, teacher attitudes, student mental health, school failure and health damaging behavior, Paper presented at the American Educational Research Association Annual Conference, Washington, DC.

Minton, H.L., & Schneider, F.W. (1980). Differential psychology, Monterey, CA: Brooks/Cole.

Morgan, W.R. (1984). The high school dropout in an overeducated society, Columbus, OH: Ohio State University.

Mott, F.L., & Marsiglio, W. (1985). Early childbearing and completion of high school. Family Planning Perspectives, 17(5), 234-237.

Nelson, R.W. (1985). Books, Boredom, and behind bars: An explanation of apathy and hostility in our schools. Canadian Journal of Education, 10, 136-160.

Newland, D.M. (1987). The causes and consequences of alienation: Public and Catholic secondary schools (United States), Unpublished doctoral dissertation, University of Akron, OH.

Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K., & Bent, D.H. (1975). Statistical package for the social sciences, (2nd Ed.). New York: McGraw Hill.

Northern Alberta Development Council. (1984). Early school leavers in northern Alberta. Peace River, AB: HLA Consultants.

O'Malley, P.M. & Bachman, J.G. (1976). Self-esteem and education attainment: A longitudinal analysis. Paper for American Educators' Resource Association, San Francisco, CA.

Pawlovich, W. (1985). Early school leaving: Antecedents, correlates, and consequences. Guidance and Counselling, 1(2), 41-54.

Peng, S.S., & Taikai, R. (1983). High school dropouts: Descriptive statistics from high school and beyond (NCES 83-2216). Washington, DC: National Center for Education Statistics.

Perlmutter, B.D. (1989). Using career information with dropouts and at-risk youth. The Career Development Quarterly, 38.

Phillips, J. (1984). The school leaver and the world outside. Education Canada, 24(3), 26-31.

Pierce, M. (1988). The school dropout - Alternative approaches to reducing the dropout rates. Ontario Education, 20(2).

Pittman, R.B. (1986). Importance of personal and social factors as potential means for reducing high school dropout rates. High School Journal, 70, 7-13.

Pittman, R.B., & Haughwout, P. (1987). Influence of high school size on dropout rate. Educational Evaluation and Policy Analysis, 9(4).

Poole, M.E., & Low, B.C. (1982). Who stays? Who leaves? An examination of sex differences in staying and leaving. Journal of Youth and Adolescence, 11(1), 49-63.

Raffini, J.P. (1986). Student apathy: A motivational dilemma. Educational Leadership, 44(1), 53-55.

Randawa, B.S., & Flu, L.L.W. (1973). Assessment and effect of some classroom environment variables. Review of Educational Research, 43, 303-323.

Regina Board of Education (1981). Secondary enrollment comparison: 1979-81.

Richardson, R.L., & Gerlach, S.C. (1980). Black dropouts: A study of significant factors contributing to a black student's decision. Urban Education, 14, 489-494.

Rogus, J.F. (1983). Truancy, school dropout and developmental needs. In L.E. Arnold (Ed.), Preventing adolescent alienation: An interprofessional approach, Toronto, ON: Lexington Books.

Romanow, T.J. (1985). The responses of average students to the alienating environment of an urban high school (pupils' attitudes), Unpublished education dissertation, University of Massachusetts.

Roosa, M.W. (1985), April). Adolescent mothers and school-based intervention programs: Un-met needs. Paper presented to the Society for Research on Child Development, Toronto, ON.

Ross, V.J. (1983). Find potential dropouts early, then help them stay in school. Executive Educator, 5, 16-17.

Ruby, T., & Law, R. (1983). Potential school dropouts - The attitude factor, Paper presented at the annual convention of the American Psychological Association.

Rumberger, R.W. (1981, April). Why kids drop out of school. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, CA.

Rumberger, R.W. (1982). The economic value of academic and vocational training acquired in high school. Institute for Research on Educational Finance and Governance, Stanford University, Stanford, CA.

Saha, L.J. (1985). The legitimacy of early school leaving: Occupational orientations, vocational training plans, and education attainment among urban Australian youth. Sociology of Education, 58, 228-240.

Saskatchewan Education (1981). Rural Education: Options for the '80s: A Discussion Paper. Regina, SK.

Saskatchewan Education. (1983). Study on native dropout rates. Regina, SK: Community Education Branch.

Saskatchewan Social Services (1987). Statistics on adoption. Regina, SK.

Schreiber, D. (Ed.). (1967). Profile of the school dropout, A reader on America's major educational problem, New York: Random House, N.Y.

Schultz, E.M., Toles, R., Rice, W.K., Jr., Brauer, I., & Harvey, J. (1986). The association of dropout rates with student attributes, Chicago, IL: Chicago Board of Education, Department of Research and Evaluation. (ERIC Document Reproduction Service No. ED 274 071).

Schunk, D.H. (1987). Peer models and children's behavioral change. Review of Educational Research, 57(2).

Sharan, S. (1980). Cooperative learning in small groups: Recent methods and effects on achievement attitudes and ethnic relations. Review of Educational Research, 50, 241-271.

Shaw, L.B. (1982). High school completion for young women: Effects of low-income and living with a single parent. Journal of Family Issues, 3, 147-163.

Sherman, J.D. (1987). Dropping out of school. Executive summary. Pelavin Associates, Inc., Washington, D.C., (ERIC Document Reproduction Service No. ED 299475.

Sherraden, M. (1986). School dropouts in perspective. Eduction Forum, 51, 15-31.

Simkins, L. (1984). Consequences of teenage pregnancy and motherhood. Adolescence, 19(73), 39-54.

Sinclair, R.L., & Ghory, W.J. (1987). Reaching marginal students: A primary concern for school renewal, McCutchan Publishing Corporation.

Stamp, R.M. (1988). Ontario secondary school program innovations, and student retention rates: 1920's - 1970's, A report to the Ontario Study of the Relevance of Education and the Issue of Dropouts. Toronto, ON, Ministry of Education.

Stevens, R., & Pihl, R.O. (1982). The remediation of the student-at-risk for failure. Journal of Clinical Psychology, 38, 298-301.

Turkel, S.B., & Abramson, T. (1986). Peer tutoring and mentoring as a drop-out prevention strategy. The Clearing House, 60, 68-71.

U.S. Department of Commerce, Bureau of the Census. (1983b). Lifetime earning estimates for men and women in the United States: 1979, Washington, DC: U.S. Government Printing Office.

U.S. Government Accounting Office. (1986). Dropouts: The extent and nature of the problems, Washington, DC.

U.S. Office of Education. (1978). Early School leavers: Position paper, Washington, DC: Office of Occupational Planning.

U.S. Senate, 89th Congress, Second Session (1966). Profile on youth (Senate Document No. 124, Part 1, pp. 2-30), Washington, DC: U.S. Government Printing Office.

Usher, B. and Elson, S. (1978). Early school leavers: A follow-up study, Board of Education for the Borough of Etobicoke, ON.

Valentine, M.R. (1980). An exploratory study of family background variables in relation to academic performance, persistence, intellectual orientation, locus of control and self-concept, Unpublished doctoral dissertation, University of California, Los Angeles.

Weber, J.M. (1986). The role of vocational education in decreasing the dropout rate, National Center for Research in Vocational Education, Ohio State University, Columbus.

Weber, J.M. & Mertens, D.M. (1987). Vocational education's role in dropout prevention. Vocational Education Journal, 46-48.

Wehlage, G.G. (1986). At-risk students and the need for high school reform. Education, 107, 18-28.

Wells, S., Bechard, S., & Hamby, J.V. (1989). How to identify at-risk students, A Series of Solutions and Strategies. (No. 2) National Dropout Prevention Center, U.S.A.

Welniak, E.J., & Henson, M.F. (1982). Money income of household families and persons in the United States: 1982, (Current Population Report No. 142, p. 60). Washington, DC: Bureau of the Census.

Wheelock, A. & Dorman, G. (1988). Before it's too late: Dropout prevention in the middle grades, Center for Early Adolescence, Carrboro, N.C.

Whitmore, J.R. (1980). Giftedness, conflict and underachievement, New York: Allyn & Bacon.

Whitworth, F.E. (1966). What can we do about the 'frustrated' dropout? School Progress, 35, 78.

Williams, T. & Batten, M. (1981). The Quality of School Life. ACER Research Monograph No. 12. Hawthorne, Victoria: Australian Council for Educational Research.

Winnie, P.H., & Walsh, J. (1980). Self-concept and participation in school activities reanalyzed. Journal of Educational Psychology, 72(2), 161-166.

Zamanzadeh, D. (1975). Dropout syndromes, Unpublished master's thesis, McGill University, Montreal, P.Q.

Zarb, J.M. (1981). Non-academic predictors of successful academic achievement in a normal adolescent sample. Adolescence, 64(16), 891-900.

Zellman, G.L. (1981). The response of the schools to teenage pregnancy and parenthood (Rand Research Report, No. R-2759-NIE). Santa Monica, CA: The Rand Corporation.

REFERENCE LIST

Altieri, D. (1990). Class size reduction and educational outcomes: A review of the literature. Inner City Initiative, Winnipeg, Manitoba.

Ahrendt, K.M. (1970) Reading ability and the potential drop-out. Education Canada, 10, 13-15.

Anderson, C.S. (1982). The search for school climates: A review of the research. Review of Educational Research, 52(3), 368-420.

Anderson, K.E. (1984). Developing intervention strategies for dropout-prone adolescents. The School Guidance Worker, 39, 6-11.

Archer, C. (1978). The process of leaving school: Characteristics and situation of non-graduates, Toronto, ON: Board of Education for the Borough of York.

Armove, R.F., & Strant, T. (1980). Alternative schools for disruptive youth. Educational Forum, 44, 453-471.

Arnzen, D. & Verduin, J.R. (1987). Parents as first teachers: A foundation of lifelong learning. Lifelong Learning, 2(2), 26-28.

Bachman, J.G., Green, S., & Wirtanen, I.D. (1971). Youth in transition, Vol. III: Dropping out - problem or symptom? Ann Arbor, MI: University of Michigan, Institute for Social Research.

Bachman, J.G. (1972). Drop-outs are losers: Says who? Today's Education, 61, 27-31.

Bachman, J.G., O'Malley, P.M., & Johnston, J. (1978). Youth in transition: Vol. VI: Change and stability in the lives of young men. Ann Arbor, MI: University of Michigan, Institute for Social Research.

Barber, L.W., & McClellan, M.C. (1987). Looking at America's dropouts: Who are they? Phi Delta Kappan, 69(4), 264-266.

Barnes, .E. (1973). The school drop-out as a community problem. Canada's Mental Health, 21, 25-29.

Berlin, G., & Duhl, J. (1984). Education equity and economic excellence: The critical role of second chance basic skills and job training programs. Unpublished paper, Ford Foundation.

Bledsoe, J.C. (1959). An investigation of six correlates of student withdrawal from high school. *Journal of Educational Research*, *53*, 3-6.

Bowman, D.H., & Mathews, C.V. (1960). *Motivations of youth for leaving school*, Quincy, IL: University of Chicago, Quincy Youth Development Project. (ERIC Document Reproduction Service No. ED 002 813)

Boyer, E.L. (1983). *High school: A report on secondary education in America*, New York: Harper and Row.

British Columbia Department of Education. (1980). *Preliminary analysis of data on students from 26 school districts in B.C. who left school without completing Grade Twelve*.

Brockman, S.M.A., & Reeves, A.W. (1967). Relationship between transiency and test achievement. *Alberta Journal of Educational Research*, *13*(4), 319-330.

Burrows, E.R. (1965). *Analysis of drop-out statistics of the Colorado dropout research and action project*, Denver, Colorado: Colorado State Department of Education; Colorado Dropout Project; (ERIC Document Reproduction Service No. ED 003 102).

Canadian Commissions on Employment and Unemployment, 1986.

Canadian Education Statistics Council (1990).

Carbo, M., & Hodges, H. (1988). Learning strategies can help students at risk. *Teaching Exceptional Children*, *20*(4), 55-58.

Carbonneau, J. (1990). *School dropouts: A selective bibliography*. Canada Employment and Immigration.

Carnegie Council on Policy Studies in Higher Education. (1979). *Giving youth a better chance: Options for education, work and service*, San Francisco, CA: Jossey-Bass.

Carter, L.F. (1984). The sustaining effects study of compensatory and elementary education. *Educational Researcher, 13, 4-13.*

Carter, W.G. (1973). What's wrong with today's high schools? *The Bulletin*, *53*, 262-263.

Catterall, J. (1985). *On the social costs of dropping out of school*, Stanford, CA: Standford University.

Cervantes, L.P. (1965). *The dropout: Causes and cures*, Ann Arbor, MI: University of Michigan Press.

Cipywnyk, S.V., Pawlovich, W., & Randhawa, B.S. (1983). Early school leavers in Saskatchewan: A preliminary study, Saskatoon, SK: University of Saskatchewan.

Collett, D.J. (1980). Vocational vs. traditional. Canadian Vocational Journal, 16, 37-39.

Combs, J., & Cooley, W.W. (1968). Dropouts: In high school and after high school. American Educational Research Journal, 5, 343-363.

Cooke, C., Ginsberg, A., & Smith, M. (1985). Researchers find the educational statistics are in a sorry state. Basic Education, 29, 3-8.

D'Amico, R. (1984). Does employment during high school impair academic progress? Sociology of Education, 57, 152-164.

Decima Research. (1987). A report to the Ontario study of the relevance of education and the issue of dropouts, Toronto, ON: Ministry of Education.

Druian, G. (1986). Effective schooling and at-risk youth: What the research shows, Northwest Regional Educational Lab, Portland, OR (ERIC Document Reproduction Service No. ED 275926).

Dumka, S. (1970). Who are the dropouts? The B.C. Teacher, 50, 23-28.

Dunn, R., Beaudry, J.S., & Klavis, A. (1989). Survey of research on learning styles, Educational Leadership, March, pp. 50-58.

Durward, L., & Ellis, E.N. (1972). The withdrawal of students from Vancouver secondary schools during the 1970-71 school year, Vancouver, B.C.: Vancouver Public School Board.

Ekstrom, R.B., Goertz, M.E., Pollock, J.M., & Rock, D.A. (1987). Who drops out of high school and why? Findings from a national study. In G. Natriello (Ed.), School dropouts: Patterns and policies, (pp. 52-69). New York: Teachers College Press.

Elliott, D.S., Voss, H.L., & Wendling, A. (1966). Capable dropouts and the social milieu of the high school. The Journal of Educational Research, 60(4), 180-186.

Foley, E.M. (1982). Lessons from alternative high schools, New York: Public Education Association.

Foley, E.M. (1984). More lessons from alternative high schools, New York: Public Education Association.

Frase, M.J. (1989). Dropout rates in the United States: 1988, The National Center For Education Statistics, Washington, D.C.: U.S. Department of Education.

French, J.L. (1969). Characteristics of high ability dropouts. National Association of Secondary School Principals Bulletin, 53, 67-78.

Friesen, D. (1967). Profile of the potential dropout. Alberta Journal of Educational Research, 13(4), 299-309.

Fullan, M.G. (1987). Implementing the implementations plan. In Wideen, M. & Andrews, I. (Eds.). School improvement: A focus on the teacher, New York: The Falmer Press.

Gilbert, S. (1977). The selection of educational aspirations. In R.A. Carlton, L.A. Colley & N.J. MacKinnon (Eds). Education, change and society: A sociology of Canadian education, Toronto: Gage.

Gold, Martin. (1978). Scholastic experiences, self-esteem, and delinquent behaviour: A theory for alternative schools. Crime and Delinquency, 24, 290-308.

Grant, W.V., & Eiden, L.J. (1982). Digest of education statistics 1980, Washington, DC: U.S. Government Printing Office.

Greater Victoria School District (1980). Early school leavers report.

Hahn, A. (1987). Reaching out to America's dropouts: What to do? Phi Delta Kappan, 69(4), 256-263.

Hahn, A., Danzberger, J., & Lefkowitz, B. (1987). Dropouts in America: Enough is known for action, Washington, DC: Institute for Educational Leadership.

Halifax Board of Education (1981). A survey of dropouts in Halifax city schools.

Hamilton, S. (1986). Raising standards and reducing dropout rates. Teachers College Record, 87(3), 410-429.

Hammack, F.M. (1986). Large school systems' dropout report reports: An analysis of definitions, procedures, and findings. In G. Natriello (Ed.), School dropouts: Patterns and policies, (pp. 52-69). New York: Teachers College Press.

Hammontree, T. (1978). Profile of a dropout. Florida Vocational Journal, 26-28.

Harkins, T.W. (1977). Some variables influencing the rate of secondary school dropouts in Renfrew County: 1971-76. Ontario.

Hawkins, J.D., & Wall, J.S. (1980). *Alternative education: Exploring the delinquency prevention potential*, Washington, DC: U.S. Department of Justice.

Hepfner, L.B. (1979). Counselling, positive experiences and understanding - All help to retain potential dropouts. *The School Trustee*, *32*, 12-13.

Hewitt, J.D., & Johnson, W.S. (1979). Dropping out in "Middletown." *The High School Journal*, 62(4), 252-255.

Hobbes, E.E., & Associates, *Metro elementary guidance and counselling evaluation: Final report*, Winnipeg, MB, Inner City Initiative.

Hobbs, N. (1984). *Strengthening families*, San Francisco, CA: Jossey-Bass.

Hohol, A.E. (1955). Factors associated with school drop-outs. *Alberta Journal of Educational Research*, *1*(1), 7-17.

Howard, M.A.P., & Anderson, R.J. (1978). Early identification of potential school dropouts: A literature review. *Child Welfare*, *57*, 221-231.

Hunter, M. (1989). Join the par-aid in education. *Education Leadership*. *47*(2), 36-41.

Irvine, R. (1979). Structure of school, personality, and high school dropouts. *Journal of Negro Education*, *48*, 67-72.

Justiz, M.J., & Kameen, M.C. (1986). School-business partnerships: Working to define the dropout time bomb. *NASSP Bulletin*, *70*(494), 103-108.

Kagan, S.L. (1989). Early care and education: Beyond the schoolhouse doors. *Phi Delta Kappan*, *71*(2) 107-112.

Kammerman, S. (1989). An international overview of preschool programs. *Phi Delta Kappan*, *17*(20), 135-137.

Karp, E. (Goldfarb Consultants). (1988). *The drop-out phenomenon in Ontario secondary schools: A report to the Ontario Study of the Relevance of Education and the Issue of Dropouts*, Student Retention and Transition Series, Ontario Ministry of Education, Toronto.

King, A.J.C., Warren, W.K., Michalski, C., & Peart, M.J. (1988). *Improving student retention in Ontario secondary schools*, Student Retention and Transition Series, Ministry of Education, Toronto.

Knowles, D.W. & Henly-Lewis, J. (1972). Attitudes of students in a student-centered high school. *Canadian Counsellor*, *6*(1), 20-26.

Knudsen, D.D. (1964). *An investigation of the social and familial relationships in the life of the high school dropout*. Unpublished doctoral dissertation, University of North Carolina.

Kolstad, A.J., & Owings, J.A. (1986 April). *High school dropouts who change their minds about school*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Kronick, R.F., & Hargis, C.H. (1990). *Dropouts Who Drop Out and Why - And the Recommended Action*, Springfield, Ill. Department of Special Services Education.

Kruger, W.S. (1969). They don't have to drop out. *American Education*, 6-8.

Kubiski, W.S., & Associates. (1985). *Wrap-up evaluation of the YES Canada project V.1 I & II*.

Kumar, R.C., Padro, S., & Watson, C. (1977). Forecasting note III - Estimating the number of secondary school dropouts from a local school system. *Educational Planning*, *4*(3), 44-59.

Larson, H.L. (1958). The five school project dropout study, *Alberta Journal of Educational Research*, *4*(4), 212-215.

Larter, S., & Eason, G. (1978). *The 'leaving school early' student: Characteristics and opinions*. Toronto, ON: Board of Education for the Borough of York.

Lawton, S.B., Leithwood, K.A., Batcher, E., Donaldson, E.L., & Stewart, R. (1988), *Student Reiteration and Transition in Ontario High Schools*. Toronto: Student Retention and Transition Series, Ministry of Education.

Lonetto, R. (1974). Secondary school students and teachers look at the personal side of education. *Orbit*, *5*, 24-27.

Lortie, P. (1990). Time to look again at the education of Canadians (October 8). *The Globe and Mail*.

MacKenzie, D.B. (1967). Humanizing our schools. *The B.C. Teacher*, *46*, 349-353.

Mahood, W. (1981). Born losers: School dropouts and pushouts. *National Association of Secondary Principals' Bulletin*, 65, 54-57.

Manitoba Department of Education (1975). Survey of Students Discontinuing School in the Province of Manitoba: September 1973-September 1974. Winnipeg, Manitoba.

Mann, D. (1987). Can we help dropouts: Thinking about the undoable. In G. Natriello (Ed.), School dropouts: Patterns and Policies. (pp. 3-19). New York: Teachers College Press.

Manning, W.G. (1971). A follow up of high school students taking vocational-technical courses. Saskatchewan Journal of Educational Research and Development, 2, 62-64.

Manno, B.V., & Winters, K. (1990). Lies, damned lies, and dropout statistics. Youth Policy, 12 (1).

Martens, M.J. (1977). Effects of employment on students. Saskatchewan Bulletin.

McDill, E.L., Natriello, G., & Pallas, A., (1986). The high costs of high standards: School reform and dropouts, A paper presented at the Annual Meeting of the American Educational Research Association, San Francisco.

McDill, E.L., Natriello, G., & Pallas, A.M. A population at risk: Potential consequences of tougher school standars for school dropouts. In G. Natriello (Ed.), School dropouts: Pattersn and policies, (pp. 106-147). New York: Teachers College Press.

McKerlich, B. & Auberbach, S. (1981). A summary report of Delta secondary schools as viewed by students.

McMullan, B.J., Leiderman, S. & Wolf, W.C. (1988). Reclaiming the future: A framework for improving student success and reducing dropout rates in Philadelphia, Wolfe Associates Inc., Philadelphia, PA (ERIC Document Reproduction Service No. ED 314510).

Miller, J. (1973). Schooling and self-alienation: A conceptual view. Journal of Educational Thought, 7(2), 105-120.

Miller, S.M. (1967). Dropouts - A political problem; In D. Schreiber (Ed.). Profile of a School Dropout: A Reader on America's Major Educational Problem, New York: Random House.

Morrow, G. (1987). Standardizing practice in the analysis of dropouts. In G. Natriello (Ed.), School dropouts: Patterns and policies, (pp. 38-51). New York: Teachers College Press.

Nathan, Q. (1987). Dropout prevention: The New York City success. Spectrum, 5(3), 41-46.

National Academy of Sciences. (1984). High schools and the changing workplace: The employers' view. Report of the Panel on Secondary School Education for the Changing Workplace. Washington, DC: National Academy Press.

National Center for Education Statistics. (1983). High school and beyond: The condition of education. Washington, DC: Author.

National Center for Education Statistics. (1985). Report on dropout rates. Christian Science Monitor.

National Dropout Prevention Center (1990). Effective Strategies for Dropout Prevention: A Dozen Strategies for Dropout Prevention, Clemensen, SC, Clemensen University.

National Foundation for the Improvement of Education (1986). A blueprint for success: Operation rescue, Washington, D.C. (ERIC Document Reproduction Service No. ED 274093).

Natriello, G. (1986). Introduction. In G. Natriello (Ed.). School dropouts: Patterns and policies, (pp. 1-2). New York: Teachers College Press.

Natriello, G., Pallas, A.M., & McDill, E.L. (1987). Taking stock: Renewing our reserch agenda on the causes and consequences of dropping out. In G. Natriello (Ed.), School dropouts: Patterns and policies, (pp. 168-178), New York: Teachers College Press.

Newfoundland Department of Education (1984). The Early School Leaving Report, St. John's, Nfld.

Newfoundland Department of Education (1989). Dropout prevention: Principles and guidelines, St. John's, Nfld.

Nova Scotia Department of Education (1981). Preliminary data on Pupils who ceased to attend any school or any institution: 1980-81.

Oshawa School Board (1968). A survey of vocational opportunities for withdrawals and graduates from the Oshawa Secondary School system. Canadian School Journal, 46, 7-9.

Pallas, A. (1986). School dropouts in the United States: In J.D. Stern & M.F. Wills (Eds.) The condition of education, (pp. 158-174) Washington, DC: U.S. Department of Eduction, Center for Education Statistics.

Passow, A.J. (1987). Closing the achievement gap between educationally disadvantaged and other populations. Paper presented at the Texas Education annual Mid-winter Superintendents Conference, Austin, TX. (ERIC Document Reproduction Service No. ED 282947).

Peck, N.L., Law, A. & Mills, R.C. (1987). Dropout prevention: What we have learned, ERIC Clearing House on Counselling and Personnel Services, Ann Arbor, Mich (ERIC Reproduction Service No. ED 279989).

Peck, N.L., & Eberhard, R.G. (1988). Dropout prevention strategies, The Practitioner 15(2).

Peng, S.S. (1985). High school dropouts: A national concern, Paper for Business Advisory Commission, Education Commission of the States. Washington, DC: Department of Education.

Phelan, W.T. (1987). Obstacles to high school graduation. The real dropout problem. Journal of Educational Equity and Leadership, 7(3), 223-234.

Powell, D. (1989). Families and early childhood programs, Washington, D.C.: National Association for the Education of Young People.

Price Waterhouse (1990). Qualitative research on school leavers, Ottawa: Statistics Canada.

PIOR Education Consultants (1990). Early school leavers, Analysis of longitudinal studies, Ottawa: Employment and Immigration Canada.

Pritchett, W. & Willower, D.J. (1975). Truants and dropouts. Encyclopedia of Educational Research: Fifth Edition, Volume 4.

Quirouette, P., Saint-Denis, O. & Huot, N. (1990). Identifying probable school leavers in Ontario high schools, Student Retention and Transition Series, Ontario Ministry of Education, Toronto, ON.

Radwanski, G. (1987). Ontario study of the relevance of education and the issue of dropouts, Toronto, ON: Ministry of Education.

Reich, C., & Young, V. (1975). Patterns of dropping out. Interchange, 6, 6-15.

Report of the "Patterns of Dropping Out" workshop (1978). Toronto, Ontario: The Board of Education for the City of Toronto.

Research Triangle Institute. (1985). Study of high school dropouts in Appalachia, Research Triangle Park, NC: Research Triangle Institute, Center for Educational Studies.

Ristow, L.W. (1965). Much ado about dropouts. Phi Delta Kappa, 46(9), 461-464.

Ruben, A.M. (1987). Boosting teachers self-esteem: A dropout prevention strategy, A paper presented at the International Collaborative Conference on Careers, Miami, FL (ERIC Document Reproduction Service o. ED 267316).

Ruby, T. & Law, R. (1987). School dropouts - Why does the problem prevail? Paper presented at the Annual Meeting of the National Association of School Psycholgists, New Orleans, LA (ERIC Document Reproduction Service No. ED 289095).

Rumberger, R.W. (1983). Dropping out of high school: The influence of race, sex, and family background. American Educational Research Journal, 20(2), 199-220.

Rumberger, R.W. (1987). High school dropouts: A review of issues and evidence. Review of Educational Research, 57(2), 101-121.

Saskatoon Catholic Board of Education (1978). Assessment of alternative and special education offerings - Secondary, Saskatoon, SK.

Schorr, L.B. & Schorr, D. (1988). Within our reach: Breaking the cycle of disadvantage, New York: Doubleday.

Schreiber, D. (Ed.). (1966). The school dropout, Washington, DC: National Education Association.

Schreiber, D., Kaplan, B.A., & Strom, R.D. (1965). Dropout studies: Design and conduct, Washington, DC: U.S. Office of Education, National Education Association.

Sellick, S.B., A study of male dropouts in grades nine and ten at Hillcrest high school; Port Arthur, Ontario. From September, 1954 to June, 1960. Ontario Journal of Educational Research - 1964-65, 7(2); 199-209.

Sewell, T.E., Palmo, A.J., & Manni, J.L. (1981). High school dropout: Psychological, academic, and vocational factors. Urban Education, 16(1), 65-76.

Sharp, E.F., & Kristjanson, L. (1965). Manitoba high school students and dropouts, Winnipeg, MB: Department of Agriculture.

Sherman, J.D. (1987). Strategies for financing state dropout programs. Youth at risk, Education Commission of the States, Denver, Colo. (ERIC Document Reproduction Service No. ED 299475).

Slavin, R.E., & Madden, N. (1989). What works for students at risk: A research synthesis, Educational Leadership, 46(5).

Small, J.S., Wilson, T.R. & Stennett, R.G. (1973). Life after school. Orbit, 3, 12-13.

Statistics Canada. (1973, 1975). Education in Canada, Ottawa, ON: Supply & Service.

Statistics Canada. (1986). Education in Canada: A statistical review for 1985-1986 (CAT No. 81-229, pp. 197-198). Ottawa, ON: Supply and Service.

Statistics Canada. (1987). The labour force (CAT No. 7-71-001, pp. 91-92) Ottawa, ON: Supply and Service.

Statistics Canada (1990). A statistical portrait of elementary and secondary education in Canada. (Catalogue C.S. 2-38/1990) Ottawa.

Steinberg, L., Blinde, P.L., & Chan, K.S. (1984). Dropping out among language minority youth. Review of Eductional Research, 54, 113-132.

Stevens, J.J. (1965). The development and testing of a model for the identification of potential school dropouts (Doctoral dissertation, Colorado State College) Dissertation Abstracts International, (University Microfilms No. 65-7734)

Stobo, H. (1973). A survey of high school dropouts in two Schools in the Borough of York, 1971-72, Toronto, ON: Board of Education for the Borough of York.

Stroughton, C.R. & Grady, B.R. (1978). How many students will drop out and why? North Central Association Quarterly, 53(2), 312-315.

Sudbury School Board (1977). Comparison of Secondary School Enrollments by Month.

Thornburg, H. (1975). Attitudinal determinants in holding dropouts in school. Journal of Educational of Research, 68 (5), 181-185.

Toles, R., Schulz, M., & Rice, W.K. Jr. (1986). A study of variation in dropout rates attributable to effects of high school. Metropolitan Education, 2, 30-38. Reproduced in Dropouts, pushouts and other casualties Phi Delta Kappa: Hot Topics Series. (pp. 105-113).

U.S. Department of Commerce, Bureau of the Census. (1983a). Statistical abstract of the United States, Washington, DC: U.S. Government Printing Office.

U.S. Department of Health, Education, & Welfare. (1975). Statistics of the month: Estimates of school dropouts, Washington, DC.

Vincent, G.B., & Black, D.B. (1966). The dropout is society's burden: Fact or fiction. Canadian Education and Research Digest, 6, 313-330.

Voss, H.L., Wendling, A., & Elliott, D.S. (1966). Some types of high school dropouts. Journal of Educational Research, 59, 363-368.

Wagenaar, T.C. (1987). What do we know about dropping out of high school? Research in Sociology of Education and Socialization, 7, 161-190.

Walker, B. (1980). Halifax dropout survey, Nova Scotia: Department of Education.

Walz, G.R. (1987). Combatting the school dropout problem: Proactive strategies for school counsellors. ERIC Clearing House on Counselling and Personnel Services, Ann Arbor, Michigan. (ERIC Document Reproduction Service No. ED 287112).

Warner, O.R. (1964). The scholastic ability of school dropouts. Selected reports and statistics on school dropouts, Washington, D.C.; U.S. Department of Health, Education and Welfare.

Warren, W.W., & King, A.J.C. (1979). School to work study, Toronto, ON: Ontario Secondary School Teachers Federation, Provincial Research Committee.

Watson, C. (1975). Focus on dropouts, An abridged version of the report of the "Ontario Secondary School Dropout Study, 1974-75." Toronto, ON: Ministry of Education.

Watt, J.J. (1974). What can be done to humanize large high schools. Education Canada, 14, 38-41.

Wehlage, G.G. (1986). At-risk students and the need for high school reform. Education, 107, 18-28.

Wehlage, G.G., & Rutter, R.A. (1987). Dropping out: How much do schools contribute to the problem? In G. Natriello (Ed.) School Dropouts: Patterns and policies (pp. 70-88). New York: Teachers College Press.

Wehlage, G.G., Rutter, R.A., Smith, G.A., Lesko, N., & Fernandez, R.R. (1989). Reducing the risk: Schools vs. communities of support, Philadelphia, PA: The Falmer Press.

Weidman, J., & Friedman, R. (1984). The school to work transition for high school dropouts. The Urban Review, 16(1), 25-42.

Weinreich, R.C. (1966). The neglected youth in our high schools. Journal of Education, 15, 3-6.

Whalen, B. (1985). Developing an alternative high school. NASSP Bulletin, 69 (482), 106-109.

Wickstrom, R.A. (1967). Pupil mobility and school achievement. Alberta Journal of Educational Research, 13(4), 311-318.

Wheeler, R. (1980). An alternative to failure. Teaching reading according to students perceptual strengths. Kappa Delta Pi, 2, 59-63.

Whiteside, M. & Merriman, G. (1976). Dropouts look at their teachers. Phi Delta Kappa, 57, 701-702.

Wideen, M.F. (1985). Characteristics of faculties of education. In D. Hopkins & K. Reid (Eds.). Rethinking Teacher Education, London: Croom Helmm.

Willis, H.L. & Halpern, G. (1970). A survey of how students perceive their high schools. Education Canada, 10, 29-33.

Winnipeg Inner City Education and Recreation Coordinating Committee. (1980). Student dropouts in Winnipeg School Division No. 1.

Young, V., & Reich, C. (1975). Patterns of dropping out, Toronto, ON: Board of Education of the City of Toronto, Research Department.

Zamanzadeh, D., & Prince, R. (1978). Dropout syndromes: A study of individual, family, and social factors in two Montreal high schools. McGill Journal of Education, 13(3), 301-318.

Zey, M. (1984). The mentor connection, Homewood, IL: Dow-Jones-Irwin.